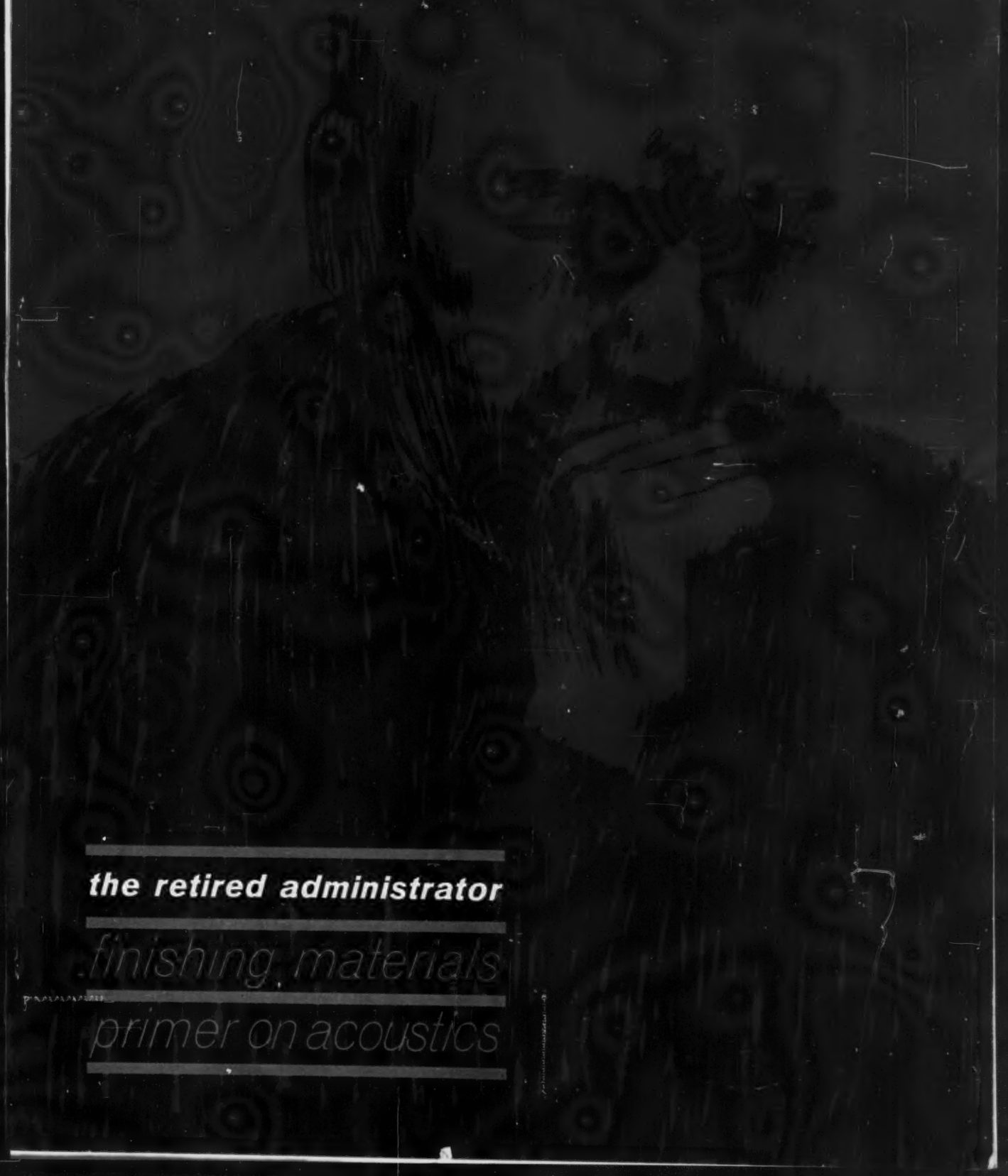
Educational Executives' November 1961

OVERVIEW

A BUTTENHEIM PUBLICATION



the retired administrator

finishing materials

primer on acoustics

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is money lost.

[Old Japanese Proverb]

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This is the year to experiment with programed learning

A Message from TMI-GROLIER to Teachers and School Administrators

Educators and school administrators are generally agreed today that programed learning is certain to be broadly adopted in the nation's schools in the coming years.

The basic questions no longer concern the *merits* of programed learning, but, rather, the best *methods and materials* for introduction in the specific circumstances of each school system.

And this is a matter which each school system must establish for itself. There is much data and experience available, and many types of materials. Not only must these be objectively evaluated under classroom conditions, but educators will want to resolve such questions as: Should programs be used with—or without—machines? . . . Should programs be used by all students in a class? by advanced students only? by the least advanced? . . . What should be done with students who finish a program in less than the normally allotted time? . . . Should teaching machines and programed courses be substituted for conventional methods of instruction? to reinforce them? to supplement them?

By familiarizing themselves now with the theory of programed learning, experimenting with ways of using machines and programs in the classroom, and methods of fitting programed courses into the curriculum, educators will make it possible for subsequent adoption to be accomplished with a minimum of uncertainty and disruption.

TMI-GROLIER Materials Incorporate Findings of School Research

Many of the questions that will naturally occur to educators have already been broadly investigated by TMI-GROLIER programing and field testing faciiities. Our materials now incorporate innovations and improvements suggested by both our cooperative research activities with several of the country's leading school systems, and by information derived from the independent experimentation of hundreds of individual schools. For example, we find that regional differences and high rate of change in some of the sciences make it preferable, for the present, to program elements of certain subjects, rather than curriculum years. We believe that multiplication and division, fractions, addition and subtraction, for example, should be programed independently, rather than as second, third, or fourth grade arithmetic. Treated as modular curriculum units, these programs can be easily adapted to a wide range of teaching situations.

In addition to improvements made in the basic programs through school evaluations, TMI-GROLIER will shortly be marketing a new version of its basic MIN-MAX Teaching Machine—the Mark II—which will incorporate design features that schools have told us are essential, e.g., automatic paper feed and re-usable programs. Our programing facilities in Albuquerque, New Mexico, (Teaching Machines, Inc.) operate under the personal supervision of men who are acknowledged leaders and pioneers in the field. TMI-GROLIER's current programs provide a wide range of subjects chosen to indicate the rich possibilities of the new medium. Thirteen basic courses in programed learning have been completed and thoroughly tested.* Eventually TMI-GROLIER programs will include virtually every subject in the elementary and secondary school curricula.

A Challenge — And Opportunity — For The Coming Year

The experiments which schools are now conducting, and will conduct in the coming months, are helping to prepare the way for one of the most important advances in the history of education. Enlightened educators recognize that the process is a lengthy and complex one and that to defer experimentation now may result in undesirable lags later when broad adoption is generally indicated.

TMI-GROLIER is eager to assist in programs of controlled experimentation by schools during the coming year, and to facilitate—in every possible way—the sharing of meaningful classroom experiences.

To that end, we are developing a wide variety of materials. If you would like to be placed on our mailing list to receive them, write to us under your school letterhead. Our educational consultants and field representatives are prepared to offer invaluable advice and assistance. In addition, we are constantly publishing literature on various aspects of programed learning and its implications to teaching and teachers. Write for a list of these publications to Dept. 70.

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LETTERS

Sell Out?

Was rejection of federal aid to education bills a "sell out" as you quoted from *The New York Times* in your October issue "Late News" section? Instead of "Mourning after," might you not have taken a constructive position suggesting that educators face up squarely to resolving educational problems at their source, the local and state level, instead of the around-about federal aid method. If educators can't practice, or at least urge self-sufficiency, how can they teach it? . . . Politically, economically, and constitutionally, federal aid to education is unwise. It won't win votes. It penalizes those states and school districts that have faced up to their local problems at considerable expense, to the extent that they would have to additionally pay for those who won't. It is constitutionally illegal, as the responsibility for education was specifically reserved for the states.

Finally, has any state *clearly* demonstrated that it is financially *unable* to handle this constitutional responsibility? If so, let's determine which one, and attack a specific problem instead of generalizing a need that just doesn't generally exist.

R. I. DYER, Wilmington, Del.

Vocational Education

. . . In my opinion, Dr. Hankin's article ["Basic Choices in Vocational Education," August] is very well written. It is obvious that he is thoroughly grounded in vocational education philosophy programs and their operation. It is especially gratifying to read such a thorough analysis in a general education publication. So often the writers who contribute vocational education articles are not fully qualified to write on it. . . .

W. M. ARNOLD, Acting Assistant Commissioner for Vocational Education, Department of Health, Education, and Welfare, Office of Education, Washington, D. C.

. . . There is a great need for a better understanding of vocational education by school administrators. Your magazine is rendering a great service in carrying first-class stories dealing with this subject. . . .

M. D. MOBLEY, Executive Secretary, American Vocational Assn., Inc., Washington, D. C.

Hurricane Refuges

Even as your October issue was going to press (which included "Refuge Among the Ruins") the Galveston schools were being used to shelter thousands of persons forced from their homes by Hurricane Carla. In fact, Red Cross shelters in schools throughout the coastal and inland areas of Texas and Louisiana were emphasizing the validity of your thesis as they housed hundreds of thousands of persons who left their homes. . . .

ROBERT C. EDSON, National Director, Disaster Services, American National Red Cross, Washington, D. C.

Worldly Americans

Prompted by your interesting news item "Trend Toward Worldly Americans" [July OVERVIEW p58], may I suggest your readers might be interested in what our two-year college is doing along these lines? Our Overseas Service Program trains young women to fill responsible secretarial positions with American business, governmental, and service organizations abroad.

Educational Executives'

OVERVIEW

A Buttenheim Publication

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Variety is the spice . . .

. . . of education, too. In this issue two articles make that point regarding construction. "A Primer on Acoustics" (p. 48) explains the variety of materials from which the educator may choose to control sound in classrooms and traffic areas. "Finishing Materials: Part I" (p. 52) acknowledges the variety of doors, windows, and hardware available to the builder of schools.

The more we visit schools and colleges, the more convinced we are that educators stand in the front ranks of those who build. They open a *new and different plant* on the average of *once every hour.* From their specifications—many of them experimental—comes new knowledge of glass, wood, tile, air conditioning, lighting, steel, paint, carpeting, etc. We believe that few groups outside the building industry itself contribute as significantly to that industry as does the profession of educational administration.

Donald V. Buttenheim
Publisher

The Overseas Service Program student completes her training in a third year of part-time work as a secretary in the country of her choice, and part-time study at a university there. . . . The areas of present concentration are France, and French-speaking Africa; Spain, and Spanish-speaking countries of Central and South America; and Japan. Plans are under way for adding Russian studies in 1962.

WILLARD WHITMAN, Chairman, Overseas Service Program, Bennett College, Millbrook, N. Y.

Negro Administrator

. . . I want to voice again my sincere appreciation for the article appearing in the June issue of OVERVIEW regarding the plight of Negro administrators. It may be of interest to you to know that as a class assignment, some forty-five students enrolled in a summer session introductory course in administration at this University prepared their personal reactions to the article. The consensus of opinion was that this is a forthright portrayal of facts studiedly designed to reveal prevailing policies related to the utilization of high ranking Negro administrative ability. They were most appreciative that a publication directed to the nation's leading educational administrators had given the problem space and emphasis.

E. B. MARTIN, Head, Department of Administration, Supervision and Guidance, Florida A & M University, Tallahassee

Low Performer

The article ["Reaching the Low Performer"] in the September issue by Hal Fuller and James Davis, I thought, was particularly apropos. . . . [We] have arranged to have these less fortunates take seats in the rear of the room and forget them . . . that is, as long as they were not discipline problems.

It is my wish that this article will inspire educators and school boards to give more thought and action to helping this group.

JOHN POWELL, Principal, Chana (Ill.) Grade School, District 113

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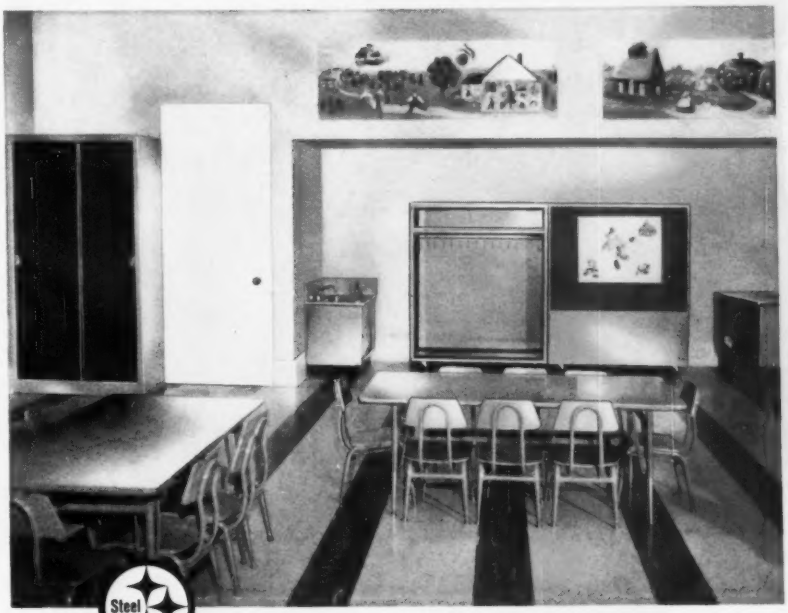

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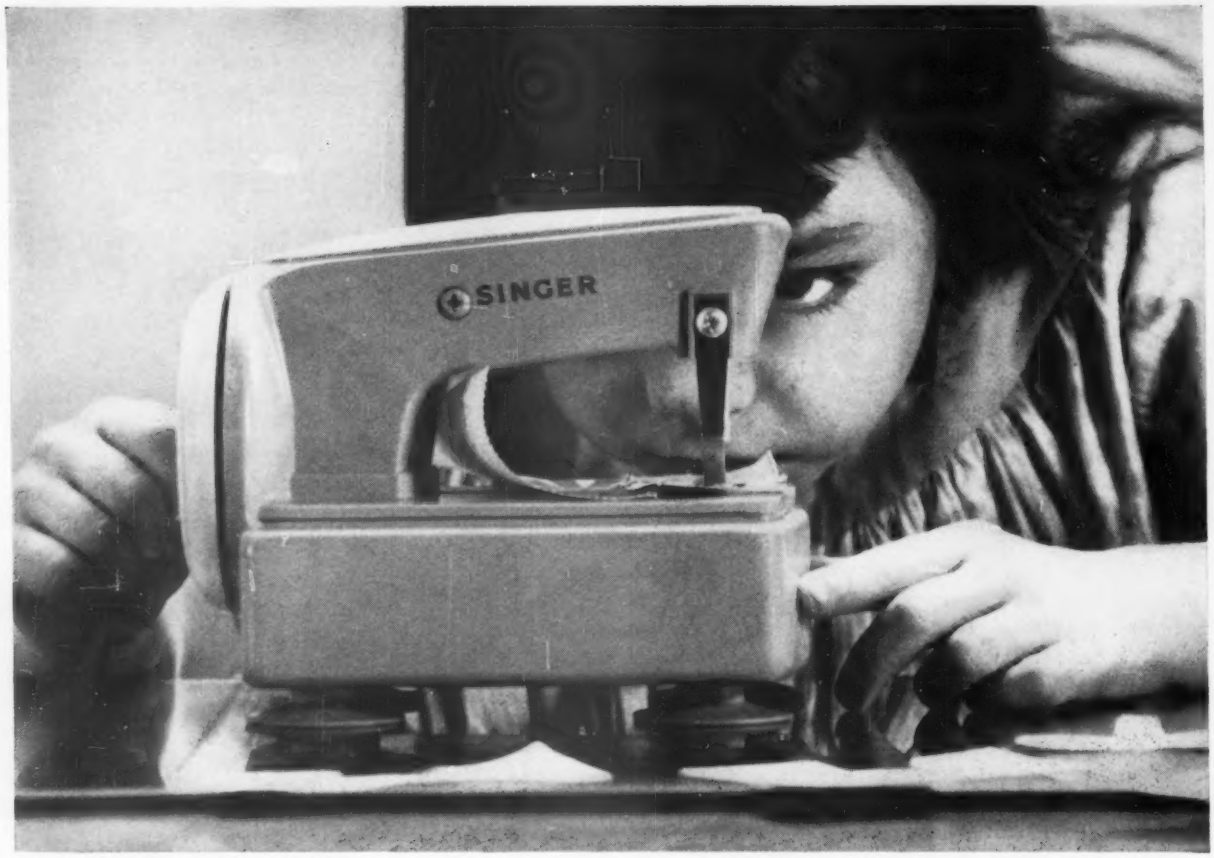

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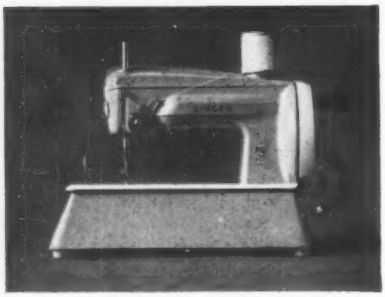

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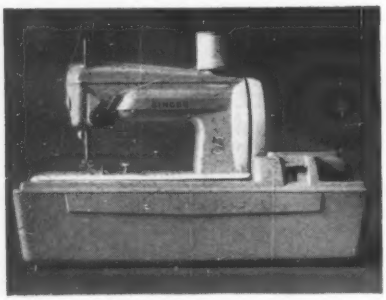

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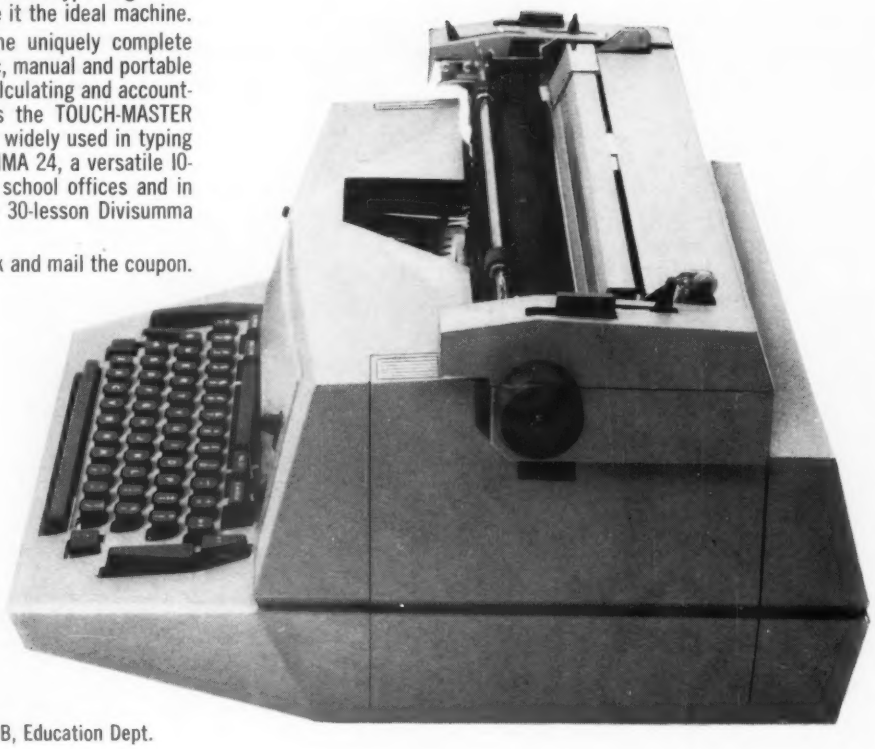

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ONE VIEW

Archibald B. Shaw

Boards Can Be Policy Bodies

DOES YOUR BOARD pick out paint colors or select the brand of business machines or choose the teaching tools or take a hand in hiring the help? Lots of them do, but mostly in the small districts or in those that have burst their seams suddenly. We estimate that the professionals who administer the districts for four-fifths of our children—and spend much more than four-fifths of our national public school money—have only occasional problems with board members getting into the act. The problem is out of all proportion because these districts account for less than one-quarter of the total number of boards of education.

Of course, some of the finest board-superintendent relationships are to be found in small districts and some of the poorest in the very large ones. But superintendents in smaller districts have all of the problems of administration with almost none of the professional assistance available to their colleagues in the larger districts. This is an invitation for board members of good will to step in.

It isn't as though there is any real dispute over the principles involved. We don't know of any responsible study which fails to support the thesis that management is the job of the administrator and broad policy-making the job of the board. The hitch comes in the tendency of individual board members to satisfy their urge to be doing something "concrete"—or in the lingering distrust of the schoolmaster's practicality.

Adoption of a well-thought-out general policy statement by the board is important but no panacea. A board that can be led to work out such a statement is already a long way towards full understanding of its role. And unless it actively wants to play that role, official policy is not much more than a pious paper.

To one view, what the harassed superintendent can do is beat them to the punch. This may mean nothing more than being prepared with his own well-considered recommendations before the need has fully percolated through to the board member.

On a more professional level, beating them to the punch should be translated as careful planning. *Before* the board considers next year's budget, *before* they see that they have to buy chairs or typewriters or whatever, in fact *before* they must make almost any decision—that's when planning by the professionals must take place. If the board is to make policy, it must feel the need for policy and must have adequate information on which to make policy, including information on the probable educational and other consequences of alternative choices.

Specifically if a board at budget time is presented (1) with a forecast of enrollment and other pertinent facts as to the probable size of the task and of the resources available, (2) with a series of possible programs to meet the educational needs, (3) with each price-tagged and otherwise labeled as to the probable consequences, and (4) with a reasoned recommendation for one particular program of staffing, housing, equipping, supplying, and maintaining, then the discussion can be kept on a much higher level than if each item were taken up separately.

Similarly, long before the time to order equipment for a new building or newly-adopted program, the educational leader will have worked out with the staff both its space needs and equipment and supplies needed to make it work. When this is balanced against costs and resources, the board again will focus on weighing the desirable against the feasible.

The point is that if we want boards of education to spend their time on matters which really are in their preferred province, the administrator must be prepared to make those issues plain.

Most board members meddle because they want to exercise the power and responsibility they see is theirs. Good administration means sharpening and focusing the policy issues so that the board may get the greater satisfaction, and the district the greater benefit, which comes from devoting their time and thought to things that really count. The occasional malefactor or petty power-seeker is a nuisance. But it's the good men and women who take their board membership seriously but who find their agenda clogged with trivia and who have only the little decisions to make—these are the ones whose meddling in management details is tragic for them and their districts—who can be helped. ●

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FORUM

The New Trend

Professor John Travers is to be admired for his courage in tackling a subject that will stir conflicting emotions in most of us because of our acknowledged lack of competence in theory ["New Trends in Administration," Oct OVERVIEW p60]. I trust that his effort may be crowned with a deluge of constructive thought and criticism, from field and university, on this most important subject.

Most professors of educational administration (I cannot speak for practicing school administrators) agree that we need a theory of administration. But we are not very clear on what this agreement means. Professor Travers has presented not a new trend in administration but rather a new trend in *theory* of educational administration, based on realistic scientific theory which goes back at least as far as Francis Bacon.

Professor Travers' preferences are clear. He urges strongly a theory of "administration in general" rather than a theory of educational administration. Consistent with his general-theory idea is the notion that principles of administration contained in the theory "should be thought of as fundamental law, thus implying that there is a distinct administrative structure that may function regardless of the nature of the organization. . . ."

I would like least of all to destroy the enthusiasm of those who promote the kind of administrative theory advocated by Professor Travers. Their efforts have pointed out with certainty the central importance of administrative theory in educational administration. The job of clarification cannot be accomplished without exploration of alternatives on the part of those who find the fundamental postulates of this type of theory unsatisfactory.

Briefly, here are some of the considerations not propounded in Professor Travers' questions or his exposition: Are fundamental or universal principles of administration possible, or must the principles reflect the purposes which determine the organization? Are there fundamental general factors which underlie all administrations, or are these administrative factors dependent, in part, on the purposes of the organization? Can a potential administrator learn a theory of administration apart from a consideration of practice, or can a theory be learned only by theorizing about practice?

If you accept the above questions for investigation, you have another, inherent in them, on your hands: Is administrative theory free of human values? Those of the "new trend" portrayed by Professor Travers, who follow the doctrines of logical positivism, say it is—and for them it *is*. But positive declaration isn't enough to stop thinking; perhaps administrative theory isn't free of human values. The proposition doesn't seem reasonable if purposes have some control over perceptions, if assumptions are selected from many because they appear more likely to be helpful for our purposes, if hypotheses are developed for their likelihood of achieving human goals.—*Orin B. Graff, Head, Educational Administration and Supervision, University of Tennessee, Knoxville.*

A Lesson From New York

From the editorial page of School Boards, *the monthly organ of the National School Boards Association:*

"The recent ouster of the New York City board of education by the state legislature has given critics of our system of school operation additional ammunition. Board members throughout the nation—particularly those in other metropolitan areas—would do well to face up to the issues involved in the New York controversy, rather than shame-facedly try to sweep the dirt under the rug.

"If board members have the courage to examine the New York issues—and even make local comparisons—the scandal in our largest school system may not have been all in vain. As pointed out in a *New York Times* editorial, the investigation of inefficient and possibly corrupt building and maintenance procedures should not be considered anything but symptomatic of the real trouble.

"At the heart of the problem was the New York board's misconception of its own role in managing the school system. Instead of operating along broad policy lines and providing overall direction of the school system, the board of education became ensnared in the endless minutiae of day-to-day operation. Details which could have been capably handled by the professional staff were instead channeled through the board until they were buried in mountains of paper work. The resultant lack of overall direction is now sadly apparent. . . .

"Some of the same weaknesses that were uncovered in New York may be practiced by other boards. Hopefully, a careful study of the New York crisis in a cold, impartial after-light may preclude recurrence of the same disastrous results elsewhere."

And from the Nantucket (Mass.) Town Crier:

"The obligations and duties which are the lot of school committees certainly are imposing and taxing enough on its members, usually laymen with limited time on their hands, without their inviting unnecessary tasks.

"For that reason, although not only for that one, it becomes imperative that a school board devote its limited time at its monthly meetings to broad policy rather than enmesh itself in inconsequential detail that is more properly in the province of its administrators who are paid for that very purpose.

"The key to the whole problem lies in the school committee's ability to reach a mutual agreement on what is broad policy for it to consider, and the menial detail and academic matters which properly are for its experienced faculty and administrators.

"Having reached the decision, the result should be more efficiently conducted school board meetings and more efficient school department and academic administration." ●

CALENDAR

NOVEMBER

5–6, Assn. of Urban Universities. At Chicago, Ill. Sec.-treas.: Norman P. Auburn, The University of Akron, Akron 4, Ohio

5–9, Assn. of University Evening Colleges. At Cleveland, Ohio. Ex. sec.: Edwin H. Spengler, Brooklyn College, Brooklyn 10, N. Y.

5–8, Adult Education Assn. of the U.S.A. At Washington, D. C. Ex. sec.: Glenn S. Jensen, 743 No. Wabash Ave., Chicago 11, Ill.

5–12, National Assn. of Public School Adult Educators. At Washington, D. C. Ex. sec.: Robert A. Luke, 1201 16th St., N.W., Washington 6, D. C.

6–9, National Institutional Teacher Placement Assn. At Boulder, Colo. Ex. sec.: James H. Bash, School of Education, University of Virginia, Charlottesville

7–10, Council of Chief State School Officers. At Baltimore, Md. Ex. sec.: Edgar Fuller, 1201 16th St., N. W., Washington 6, D. C.

12–16, American Assn. of Land-Grant Colleges & State Universities. At Kansas City, Mo. Ex. sec.: Russell I. Thackrey, 1785 Massachusetts Ave., N.W., Washington, D. C.

22–25, National Council for the Social Studies. At Chicago, Ill. Ex. sec.: Merrill F. Hartshorn, 1201 16th St., N.W., Washington 6, D. C.

DECEMBER

3–6, American Technical Education Assn., Inc. At Kansas City, Mo. Ex. sec.: William N. Fenninger, 22 Oakwood Place, Delmar, N. Y.

4–8, American Vocational Assn., Inc. At Kansas City, Mo. Ex. sec.: M. D. Mobley, 1010 Vermont Ave., N.W., Washington 5, D. C.

26–31, American Assn. for the Advancement of Science. At Denver, Colo. Assoc. admin. sec.: Raymond L. Taylor, 1515 Massachusetts Ave., N.W., Washington 5, D. C.

27–29, Modern Language Assn. of America. At Chicago. Ex. sec.: George Winchester Stone, Jr., 6 Washington Square North, New York 3, N. Y.

27–30, College Physical Education Assn. At Kansas City, Mo. Ex. sec.: M. M. MacKenzie, Box 70, Teachers College, Columbia University, New York 27, N. Y.

28–30, Assn. of American Law Schools. At Chicago. Ex. sec.: Samuel D. Thurman, Stanford Law School, Stanford, Calif.

JANUARY

9, American Conference of Academic Deans. At Cleveland, Ohio. Ex. sec.: Frank M. Snowden, Jr., College of Liberal Arts, Howard University, Washington 1, D. C.

9–11, Assn. of American Colleges. At Cleveland, Ohio. Ex. dir.: Theodore A. Distler, 1818 R St., N.W., Washington 9, D. C.

Data for Delegates—University Circle is the site of many of Cleveland's points of interest: Museum of Art; Garden Center; Health Museum; Western Reserve University; Case Institute; Institute of Art; Institute of Music; Karamu Studio Theatre; Western Reserve Historical Society; General Electric Lighting Institute. For music-lovers: the Cleveland Orchestra performs Thursday and Saturday nights at Severance Hall. For theatre-lovers: the Cleveland Playhouse. For sportsmen: "Emerald Necklace" (14,000 acres of the Cleveland Metropolitan Park System). It's cold in January—mean temperature, 24.7°.

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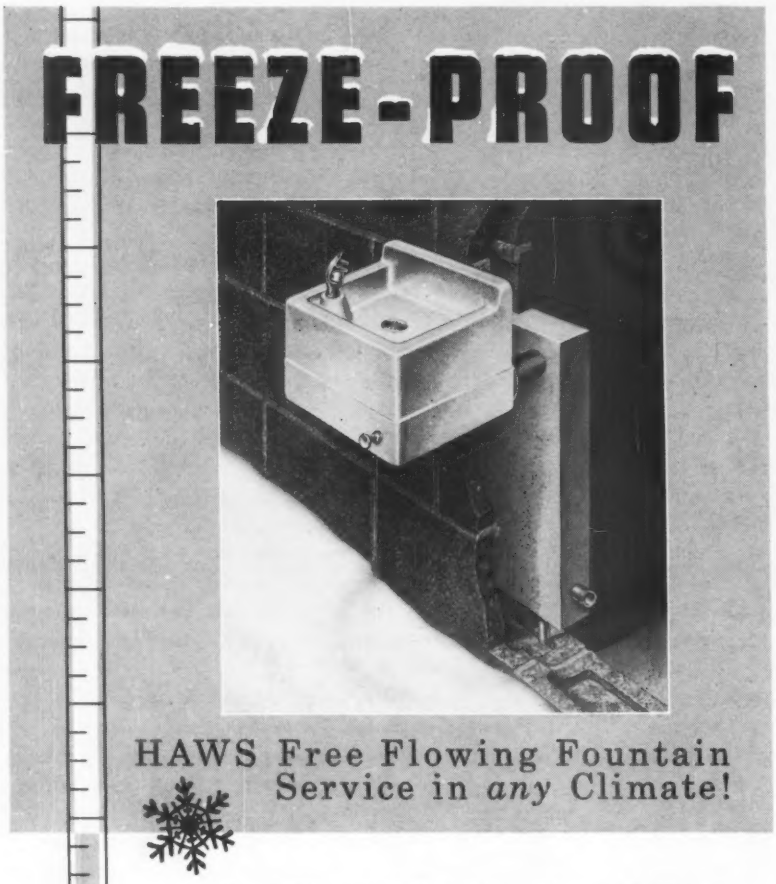

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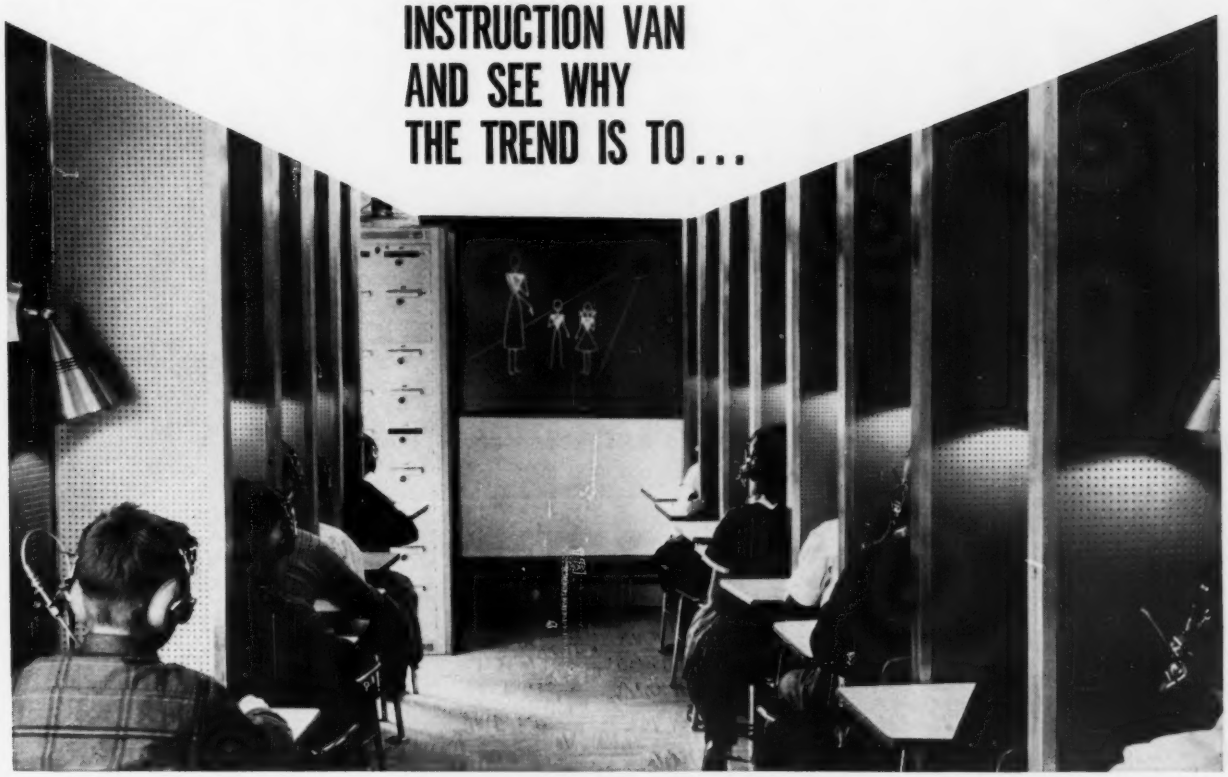

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ECONOMIC SCENE

The Underpaid Male Teacher

TEACHERS SALARIES are beginning to show average yearly increases that compare favorably with wage increases in other occupations. Yet this has not solved the problem of hiring good teachers—average salaries still mean average teachers for the most part.

But if there are special inducements in addition to salary, you can raise the quality of the person hired. The make-up of your labor force also has much to do with teacher quality if you are paying average salaries. When average salaries of women teachers are compared with average salaries of all working men, the teachers salaries stand out favorably; when they are compared to salaries of women who have the same amount of education, they still look good.

Since working conditions *and* salaries for women entering teaching compare favorably with conditions and salaries in other occupations available to women, the best available evidence shows that a high percentage of top women college graduates are going into teaching. Indeed, there is probably no serious objection to the level of ability of most women who are entering teaching.

Though starting salaries for teachers are reasonably satisfactory, the rate of yearly increase is not as good as it should be. However, it is impossible to increase rapidly the salaries of nearly a million people. And no one has figured out a way to reward the best teachers more quickly than the average or poor teachers. This makes it hard to hold on to extremely able people.

The salary situation of men teachers is a different matter. Average salaries of all men teachers are as high as the average of all workers. This isn't as good as it might sound because the earnings of men teachers are not as high as those of men college graduates, the group they should logically be compared with. Beginning salaries of men teachers run from 10 to 25 percent less than the beginning salaries of other male college graduates.

Part of this salary differential is caused by job location. There is a higher percentage of male college graduates in large cities than of male teachers. Since the average salary in all fields is highest in large cities, this tends to raise the average salary for male college graduates in occupations other than teaching.

It appears, then, that most male teachers are underpaid. Eventually this leads to a decline in the quality of persons hired. Overall, schools appear to obtain and hold a substantially higher quality of women than men teachers.

There are many reasons why teachers leave the pro-

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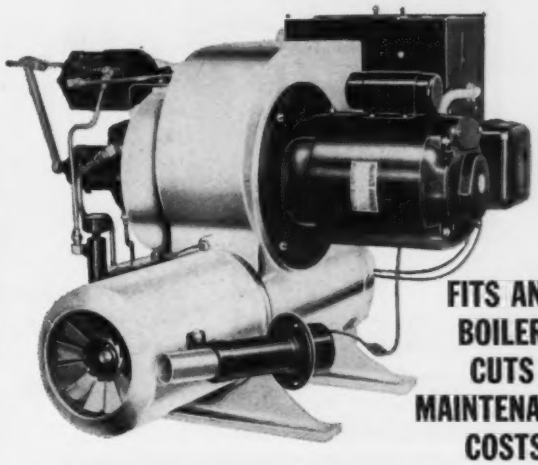

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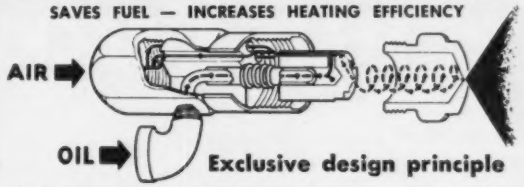

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Economic Scene (continued)

fession. But outstanding among them is the lack of opportunity to advance in salary at a reasonable rate. This is tied to the impossibility of advancing all teachers rapidly and the lack of effective procedures to reward the most able teachers. The net result has been an unusually high loss of talented male teachers.

Present salary and working conditions will probably continue to draw a satisfactory percentage of very able women into teaching for some time to come. But it is unreasonable to expect large numbers of able men to be drawn into teaching until some salary adjustments have been made.

The main problem of teachers salaries in the decade ahead is not likely to be so much concerned with providing high average salaries as in devising some way in which fairly high salaries can be provided for limited numbers of very talented people. One method to get and keep able men in education is to place them in relatively well-paying administrative and supervisory positions.

But this is only a partial solution to the problem. Efforts should still be made to raise the average level of salaries and, at the same time, the average level of ability of every member of the teaching profession.—HAROLD F. CLARK

Representative Bond Issues

(Sold from Sept. 1 to Sept. 30, 1961)

School District or College		*Amt. in Millions*	*Moody Rating*	*Net % Interest*
Cal:	Fullerton Union HS	$ 1.	A	3.5144
	Sta Maria Joint Union US	1.	A	3.436
	Chaffey Union HS	2.	Aa	3.2977
Fla:	State U (apt rev)	1.486	NR	3.5
	Dade Co Spec Tax #1	6.010	A	3.42
Ga:	State Sch Bldg Auth (revenue)	31.452	A	3.57431
Ind:	Indianapolis School City	2.2	Aaa	3.0785
Kans:	U of Kansas (dorm rev)	1.3	NR	3.5
Mich:	Rochester Community	1.5	A	3.6144
	Detroit	10.	A	3.65479
Nebr:	Bellevue	1.	NR	3.8611
N.Y.:	Ramapo Clarkstown etc Central	3.23	Baa	3.69
Ohio:	Parma	1.2	Baa	3.78
	Garfield Hts City	1.	Baa	3.85
Penn:	Manor Jt HS Auth of Lancaster Co (rev)	1.125	Baa	3.4886
	State Sch Bld Auth (rev)	25.893	NR	3.6853
Tex:	Richardson Ind	2.5	Baa	3.8876
	Spring Branch Ind	3.553	Baa	3.9435
Wis:	St Francis #6	1.	A	3.4719

NR—none assigned

Compiled from The Daily Bond Buyer

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What features of the **Hamilton** *Language Teaching System impressed skilled instructors most?*

...Hamilton's "*Geographic*" *Console Switch Position*—with student switches located in the same console position that the student occupies in class. No fumbling, no guessing, no numbers to check. *One* switch permits intercom, silent monitor, and student record. No annoying row selectors or talk-listen switches. Console cabinet desk is designed for comfortable instructor seating.

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LATE NEWS

For further coverage, see pages 66–71.

CONANT WRITES AGAIN: In his latest book, *Slums and Suburbs,* Dr. James B. Conant urges that "our large city educational problems be analyzed in far more detail than in the past and with a far greater degree of frankness."

"Social dynamite is building up in our large cities in the form of unemployed out-of-school youth, especially in the Negro slums," he writes. (July OVERVIEW p46).

"The answer to improving Negro education in the large northern cities," he continues, "is to spend more money and to upgrade Negro schools, many of which are in slums, rather than to effect token integration by transporting pupils across attendance lines. Fully integrated teaching staffs are a necessity as well."

Pointing out that slum children are not being given equal education, he bluntly asks for "more money . . . more teachers . . . more pay for teachers . . . (and) special training programs for teachers in slum schools."

Dr. Conant believes that schools in well-to-do suburbs must "guide the parent whose college ambitions outrun his child's abilities toward a realistic picture of the kind of college his child is suited for."

He recommends that every high school should participate in the Advanced Placement Program. Concerning higher education, Dr. Conant thinks every state should examine the California pattern, especially the state's two-year junior college system.

* * *

NEA MEMBERSHIP: Louisiana Attorney General Jack Germillion has changed his mind: teachers in that state will not lose their jobs if they retain their membership in the NEA. Originally Germillion ruled that the teachers would have to resign because the NEA supported the U. S. Supreme Court's desegregation order (Oct OVERVIEW p19).

Germillion's revised opinion states that "The NEA is not by law nor injunction prohibited from operating in Louisiana and, therefore, a member of that group who is a permanent teacher cannot be removed as a teacher merely because of membership in the group."

* * *

PEACE CORPS STATUS: The Peace Corps is now officially a permanent agency of the Federal Government. Congress passed and the President has signed the authorizing legislation.

Since it was set up on a pilot basis by Executive order March 1, the Corps has drawn more than 13,000 applications from Americans seeking to serve as volunteers overseas. Some 450 of these have completed training on American college campuses. Fifty men and women have already arrived in Ghana and 62 more are in Columbia. By year's end, some 900 volunteers will be overseas or ready to go.

NORTH AND SOUTH: The "neighborhood school" policy in northern cities is coming under increased attack as a stratagem for segregation.

In *Chicago,* the school board directed Supt. Benjamin Willis to take pupils off double shifts by using vacant classrooms in other school districts. The order came after 100 Negro youngsters failed to obtain transfers to all-white schools, and their parents filed suit in federal court to "end segregation" (Oct OVERVIEW p20). Willis told the board that 20 new schools or additions to existing schools—accommodating 14,630 children—would be ready for use this year to remove 10,000 children from double shifts. The redrawing of neighborhood school boundary lines will be "pushed way out" in coming weeks, Willis said.

In *Newark, N. J.,* lawyer Paul Zuber, who won the suit in New Rochelle, N. Y. (Sept OVERVIEW p24) and who is representing Negro parents in Chicago, announced that an extensive anti-segregation drive would be made in New Jersey public schools. One suit has already been filed against the Newark school board; Zuber said similar suits would be filed in "nine or ten" other municipalities. Dr. Paul H. Van Ness, assistant superintendent in charge of elementary education, said Newark schools "are completely free" of pupil and faculty segregation. In *Montclair, N. J.,* the board will close a junior high school and transfer its predominantly Negro student body.

In *New York,* Dr. James E. Allen, Jr., state education commissioner, ordered a Negro and Puerto Rican census of every public school in the state in a planned attack on segregation. While noting that racial discrimination was prohibited by state law, Dr. Allen admitted that in some communities residential pattern and customs had in fact created segregated schools.

The neighborhood policy was also attacked by the U. S. Civil Rights Commission. In a 254-page report, the Commission condemned the ghetto-like housing patterns in the North and West, and cited the New Rochelle decision as "probably the most significant since Little Rock."

The Commission also urged Congress to take punitive actions against states maintaining segregated schools and to aid individuals, communities, and states which are desegregating their schools.

An unplanned defense of the neighborhood system came from James B. Conant in his latest book, *Slums and Suburbs* (see first item).

Meanwhile in the South, *Memphis* integrated its schools without incident when 13 Negro 6-year-olds were assigned to previously all-white schools.

A law designed to cover *Georgia's* retreat from massive resistance to desegregation now threatens to drain funds from the public schools. The law authorizes tui-

tion grants to students who want to attend private, non-sectarian institutions. The State Attorney General has ruled the grants mandatory *wherever* the child chooses to attend school. Meanwhile, Georgia Tech admitted three Negroes as the first non-court-ordered desegregation in the state's public education system.

Negroes have filed suit in the Virginia Supreme Court in an attempt to force *Prince Edward County* to reopen public schools. A similar suit brought in federal court was unsuccessful; Federal Judge Oren R. Lewis said that issue was one for the state court (Oct OVERVIEW p20).

THE LONG RUN: Should the U. S. Supreme Court rule on the equality of representation in a state legislature? This question, which could have significant long-run implications for education, is now before the court. The decision, according to U. S. Solicitor General Archibald Cox could "profoundly affect the course of government in many states."

In almost all states, urban areas now have fewer seats in the legislature than their population would justify. A decision indicating that the federal courts would hold the states to some degree of equality would have national reverberations.

KENNEDY SIGNS "WITH EXTREME RELUCTANCE"

The following statement was issued by President Kennedy on signing the education bills:

It is with extreme reluctance that I am signing S. 2393, which extends for two years (1) the National Defense Education Act of 1958 and (2) the expired provisions of Public Laws 815 and 874 of the Eighty-first Congress, which provides Federal assistance to "Federally impacted" schools—districts furnishing free public education to children whose parents reside or work on Federal property, or whose presence due to other Federal activity causes a sudden and substantial increase in enrollment.

(1) The extension of the N. D. E. A. without the amendments submitted by this Administration merely continues the current program, without urgently needed improvements, for two more years—years which are crucial to the training of more teachers and the strengthening of this nation's teaching of science, mathematics, foreign language and other essential subjects. Particularly undesirable is the continuation of the discriminatory and ineffective non-Communist disclaimer affidavit. I hope the Congress can renew its consideration of these N. D. E. A. amendments next year, regardless of the new expiration date.

(2) Far more undesirable is the continuation for two more years of the current aid-to-impacted-areas program, which gives more money to more schools for more years than either logic or economy can justify. This Administration recommended a reduction in the cost of this program, an increase in its eligibility requirements and local participation, its extension for only one year instead of two, and its eventual absorption in a general aid-to-education program. The rejection of all of these requests highlights the air of utter inconsistency which surrounds this program.

Communities which beseeched the Federal Government to maintain near-by installations, however uneconomical, now demand that the Federal Government rescue them from the fiscal burdens these installations allegedly create. School districts originally entitled to temporary Federal assistance, during a transition period in which the costs of these Federally connected children could be absorbed, now demand that the aid be continued indefinitely, without any reduction for absorption, and without regard to the local taxes paid by those parents who entered the community to work on, but not reside on, Federal property. Individuals who profess opposition to Federal aid to education on grounds of states' rights, racial or religious controversy, budgetary economy or academic freedom do not hestitate to demand this Federal aid to build schoolhouses and pay teachers' salaries in their own areas.

I am not unmindful of the problems this program is designed to meet: overcrowded and hazardous classrooms in communities whose financial resources are strained to educate these Federally connected children. But I believe that overcrowded and hazardous classrooms are undesirable anywhere, whether filled by the children of Federal employes or by the children of other Federal taxpayers, and whether the local resources are strained by the location of a Federal facility or by any other cause. A quality education is a necessity for all American children, not merely those who by good fortune live in a district covered by this program.

It ill becomes those who insist that we cannot afford the expenditure of Federal funds to aid the public education of all children, to insist with equal fervor upon the passage of this unsound and uneconomical measure which aids the education of only some.

The Department of Health, Education and Welfare advises me that a refusal to extend this program at this time, thus deferring action until the next session of the Congress, would jeopardize the entire educational effort of a substantial number of school districts dependent in large measure on these funds, and unable to find substitute sources of revenue in time to meet current outlays. Many districts are legitimately in need of this aid in order to educate a substantial majority of their students whose parents both reside and work on tax-exempt Federal property. A veto would not distinguish between those properly entitled to this assistance and those who should be making more of an effort locally. I am therefore signing this bill. But the need to improve the standards of education in this country will still be before the Congress next year; and that need must be met on a basis which, for every dollar spent, goes much further to attack our most critical deficiencies than the measure I am required to approve today.

Specifically the Federal Government is asking the court to tell a lower Federal court that it has power to consider whether the constitutional rights of eleven city voters in Tennessee had been violated. Although the Tennessee constitution requires equal districts and reapportionment every ten years, no new districts have been created since 1901. Previously the Supreme Court has refused to rule on the question.

In another case, the Court rejected three more petitions by Louisiana involving efforts to put off school integration in various parts of the state.

* * *

ANNUITY BREAKTHROUGH: President Kennedy has signed a bill that extends tax-sheltered annuity coverage to public as well as private education employees. Under a variety of annuity plans, employees may set aside a portion of their yearly income for use at a later date (July 60 OVERVIEW p46). Payment of taxes on such income is deferred until the employee begins receiving annuity payments after age 65, when he is usually retired and in a lower income-tax bracket.

* * *

ASBO CONVENES: Resolutions calling for greater cooperation with other education associations, expanded research programs, and greater attention to food service were passed at the Association of School Business Officials' 47th annual convention in Toronto. Several working sessions also grappled with a key professional concern: getting good research into the hands of schoolmen who need it.

Nearly 2,600 delegates, the largest in ASBO convention history, attended. Joseph P. McElligott, chief of the division of budgets, San Francisco Unified School District, was installed as president for 1962.

Canadian diplomat Lester B. Pearson, winner of the Nobel Peace Prize in 1957 and keynote speaker, told delegates, "Education is not in itself the sum and substance of mankind's progress, but it is now the main instrument for achieving such progress."

* * *

HIGH SCHOOL ECONOMICS: More time should be devoted in high school curricula to the development of economic understanding, recommends the National Task Force on Economic Education. The task force further suggests that a separate course in analytical economics of at least one semester is essential.

"The future citizen needs to acquire a modest amount of factual information about the economic world, but the primary obligation of the schools is to help him to develop his capacity to think clearly, objectively, and with a reasonable degree of sophistication about economic problems," according to the task force report.

Another recommendation calls for the examination of controversial issues.

"The very nature of democracy implies serious discussion by the people," the report states. "Limitations on discussion of important public problems are not merely infringements on the rights of teachers to teach. More important, they are infringements on the rights of students to learn, to think, and to arrive at their own conclusions."

The task force was appointed by the American Economic Association and was financed by the Committee for Economic Development.

* * *

TEACHING MACHINES: School systems should experiment with self-instructional materials and devices before making a large scale purchase, advises a joint statement by the American Educational Research Association, the American Psychological Association, and the NEA's Department of Audio-Visual Instruction.

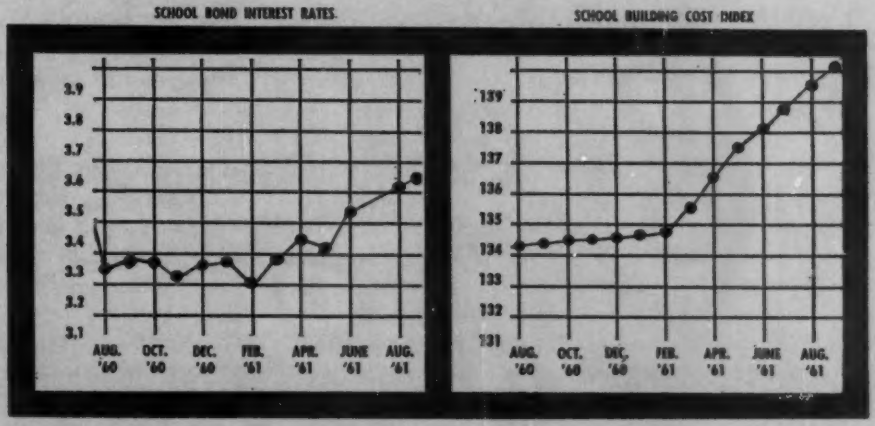
The trio suggests that school systems should ask about revisions of self instructional materials based on student responses, how preliminary tryouts were conducted, whether research data on student learning are available, what kinds of students used the teaching machines, and under what conditions.

* * *

CONVENTIONEERING: The Kennedy Administration has changed its mind about a "crack down" on convention spending. In the early days of the Administration there was even proposed a $30-a-day limit on the amount businessmen (and educators) could deduct for food and lodging on out-of-town trips. And there were reports that convention spending in resort areas would get special security. The $30-a-day limit got nowhere in Congress. But still the fear persisted.

BUILDINGS & BONDS:

School bond interest rates rose in September to 3.64 percent while the building cost index inched up to 140.1 (1947–49 = 100).



But now IRS Commissioner Mortimer Caplin told the annual American Hotel Association Convention that a recent survey of 38,000 income tax returns showed that only 3 percent of the total $12.9 million listed for convention expenses was disallowed.

The expenses of wives and children, side trips taken during a convention, and vacations disguised as convention-attendance will get harsh treatment, he said, but nearly everything else, so long as it is reasonable and is supported by reasonable substantiation, will be allowed.

* * *

BRIEF EXPERIMENT: The first step in setting up year-round schools in a community "is to educate the public to what it will mean." This was the opinion expressed by Montgomery County, Md. Supt. C. Taylor Whittier when he announced his unusual plan to try out the experiment on paper (Aug OVERVIEW p59). But Whittier has now discovered that paper plans can crumple easily. His school board recently voted 6 to 1 to drop the experiment before it ever really got started.

The board killed the idea after hearing that year-round schools had proved unsuccessful in 13 other districts. Whittier contends that his particular plan never has been tried elsewhere and commented, "We still have not answered the question of whether the plan can work."

* * *

TOTAL EDUCATION: "Educators are running scared. We're putting more pressure on children to learn more, but we're not telling them what they're preparing for." Assistant Dean Richard Featherstone of Michigan State University made these remarks not to a group of curriculum specialists but at the annual meeting of the National Council of Schoolhouse Construction.

His remarks were typical of those expressed at the meeting where overall problems of education were paramount. Supt. James Cherry of DeKalb County, Ga., assailed the five-hour-day, five-day-week, 180-day-year. He said children are placed with nursemaid teachers in part-time education, which causes more problems than it solves. "There will never be an ideal plant to suit an ideal program," said George Englehart of the Missouri State Department of Education, "and that's good, because we have to adapt education to a changing world. There is no pat solution."

* * *

MENTAL RETARDATION: Education for mentally retarded persons will be one of the major areas to be studied by a panel of outstanding physicians, scientists, educators, lawyers, psychologists, and social scientists appointed by President Kennedy.

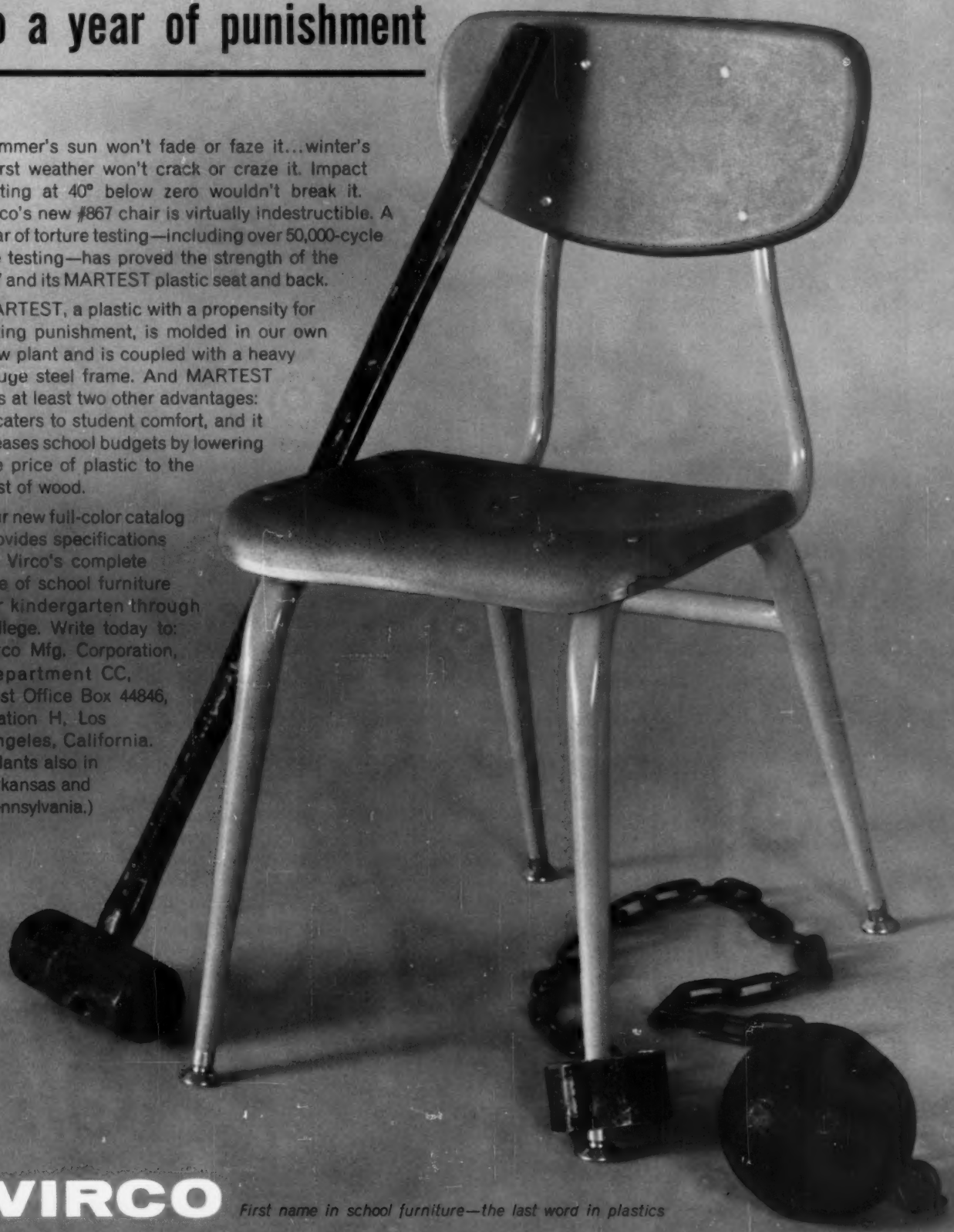
In announcing this national effort to discover the causes, cures, and prevention of mental retardation, the President said, "The number of mentally retarded enrolled in special classes has been doubled over the past decade. In spite of this record, we are not yet meeting our existing requirements, and more such facilities must be provided. Less than 25 percent of our retarded children have access to special education. Moreover, the classes need teachers specially trained to meet the specialized needs of the retarded. To meet minimum standards, at least 75,000 such teachers are required. Today there are less than 20,000, and many of these have not fully met professional standards."

The President also noted that "neither special education nor special rehabilitation procedures furnish the complete answer to employment of the retarded. New knowledge and new techniques are needed, for over 25 percent of those coming out of special classes still cannot be placed."

* * *

POTPOURRI: Three of every five college students who have borrowed money under the NDEA are planning to teach, according to HEW Secretary Ribicoff. . . . Scores of Cuban refugee children are being denied public education in New Orleans because they cannot meet admittance requirements. Improper visas and their lower academic level were cited as the main reasons. . . . The President has signed a $230 million community health facilities bill, which includes funds to finance public health schools and to build health research facilities. . . . Gov. W. W. Barron of West Virginia has called for an immediate overhaul of the state educational system. He said West Virginia "needs to get more education for what we are spending." . . . Congress has passed an amendment to the Universal Military Training and Service Act which protects the jobs of persons called to military service during the present military buildup. . . . The American Civil Liberties Union had charged that excessive inquiries by government and industrial investigators of students applying for jobs might jeopardize the relationship between teachers and students. . . . Columbia University will offer for the first time the degree of Bachelor of Planning to students in its School of Architecture. . . . The City University of New York has banned speeches by members of the Communist party on any of its campuses. . . . In the decade since 1948–49, mortality at the ages of 5 to 14 has declined by about one-third, according to the Metropolitan Life Insurance Co. . . . Americans lost an average of 16 days per person due to illnesses and injuries in the year ending June 30, 1960, according to the Public Health Service. The report showed women experienced more disability days than men, and persons over 45 had more than those younger. . . . Congress declined to lower the voting age in the District of Columbia from 21 to 18. . . . The National Fire Protective Association reports that in 1960 losses in public schools declined somewhat; damage in college and other educational buildings rose sharply. . . . The California legislature has begun a study to find a better method of allocating State School Fund money, which totals $721 million for the 1961–62 fiscal year. . . . Three students were expelled from exclusive Groton (Mass.) School for entertaining friends with tape recordings made in a house master's residence without his knowledge.

This chair was sentenced to a year of punishment



Summer's sun won't fade or faze it...winter's worst weather won't crack or craze it. Impact testing at 40° below zero wouldn't break it. Virco's new #867 chair is virtually indestructible. A year of torture testing—including over 50,000-cycle life testing—has proved the strength of the 867 and its MARTEST plastic seat and back.

MARTEST, a plastic with a propensity for taking punishment, is molded in our own new plant and is coupled with a heavy gauge steel frame. And MARTEST has at least two other advantages: It caters to student comfort, and it pleases school budgets by lowering the price of plastic to the cost of wood.

Our new full-color catalog provides specifications on Virco's complete line of school furniture for kindergarten through college. Write today to: Virco Mfg. Corporation, Department CC, Post Office Box 44846, Station H, Los Angeles, California. (Plants also in Arkansas and Pennsylvania.)

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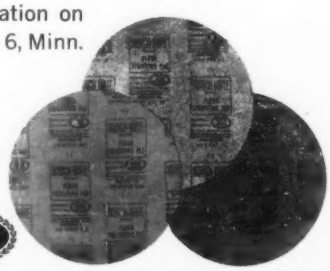
Now with 3M's new spray method and "SCOTCH-BRITE" Floor Maintenance Pads you can keep floors new looking week after week after week. This new spray method lets you clean and polish floors in one simple operation. Your floors are kept at a higher level of appearance with less strippings.

The 3M spray method and "SCOTCH-BRITE" Pads can give you dramatically pleasing results on even your heaviest trafficked floor areas. These unique non-woven Nylon pads never splash or rust . . . can be rinsed in water, dried quickly and re-used. Let us show you how regular floor care with "SCOTCH-BRITE" Pads can cut your maintenance costs and improve your floor appearance. For a free demonstration on your floors, write: 3M Co., Dept. ABW-111, 900 Bush Ave., St. Paul 6, Minn.



"SCOTCH-BRITE" Floor Maintenance Pads

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"SCOTCH-BRITE" IS A REGISTERED TRADEMARK OF 3M CO., ST. PAUL 6, MINN.

MINNESOTA MINING AND MANUFACTURING COMPANY
. . . WHERE RESEARCH IS THE KEY TO TOMORROW

3M COMPANY

SEARCHING THROUGH RESEARCH

Cost of School Fallout Shelters

THE IMMENSE hazard of radioactive fallout in the event of a nuclear war has scared a few families into digging their own shelters, but schoolhouses may be a better answer to the potential need for fallout protection. Besides being located right in the neighborhood, a school has a staff trained to handle groups of people, food service facilities, an administrative link to other schools, and a potential shelter group—the student body—which assembles daily.

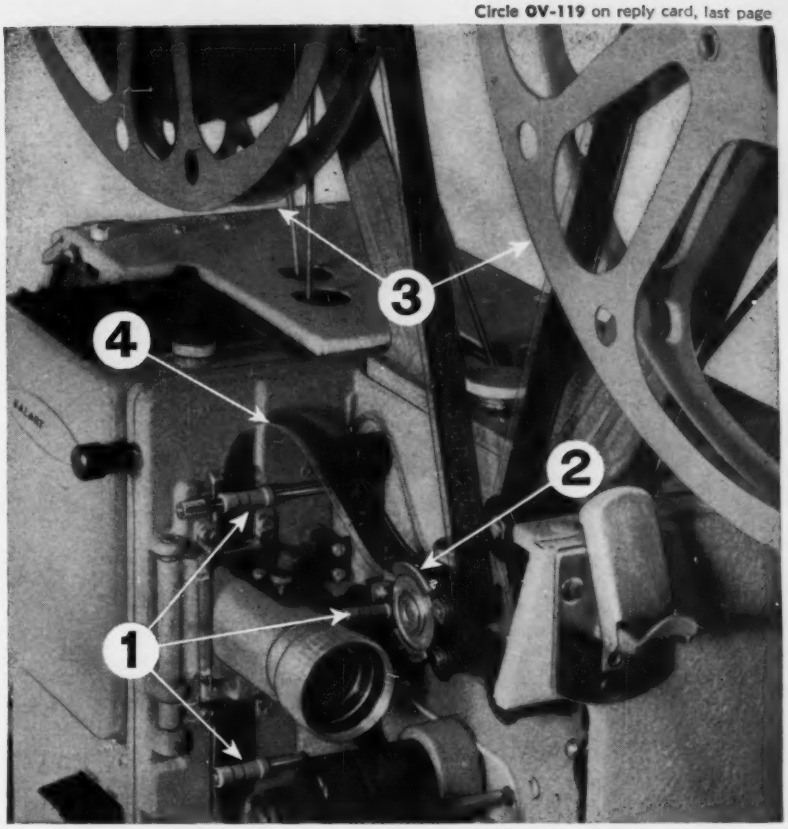
New York's Governor Rockefeller, a strong proponent of private fallout shelters, has proposed that schools and colleges in his state build shelters. In outlining his program to the State Defense Council (which unanimously endorsed it), the Governor said no institution would be required to build shelters, but the state would provide money for those that did.

How much money would it take to make a good school plant into a fallout shelter without burying it? In a joint study of this problem, we analyzed an existing Texas school, not now equipped with a shelter, to determine the necessary degree of fallout protection. It would cost, we found, just 10 percent more.

The school we chose for our case study is W. E. Boswell Senior High School in Saginaw. It is a well-planned school located critically near a target area (eight miles north of the Carswell Air Force Base on which, we assumed, an enemy would use a one-megaton weapon). It is a one-story building with light steel

By Convair-Fort Worth, division of General Dynamics Corp., and Caudill, Rowlett & Scott, architects and engineers, Houston, Texas.

Circle OV-119 on reply card, last page



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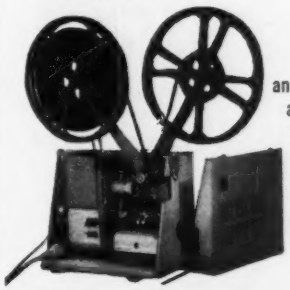
. . . and protect your costly film

1 Look for safety film trips. Film costs money, and nothing offers greater protection against film damage than Victor's Safety Film Trips. Three trips, one at each loop, stop the projector instantly and automatically in film emergencies. Kalart/Victor is the *only* projector to feature Safety Film Trips.

2 Drive sprocket is important. Kalart/Victor projectors have a single large drive sprocket instead of multiple sprockets. This way, film stress is minimal since only one sprocket feeds film into and out of the projector.

3 Check location of reels. With reels mounted on top of the projector, threading and rewinding are easy, and any level surface may be used for projector setup. Kalart/Victor has always featured top-mounted reels.

4 Ask about the offset loop. This is a basic Kalart/Victor design feature. Without it, the above three features could not be built into the projector. In addition, the offset loop makes possible simplified 3-step color-coded threading. It eliminates picture weave with natural side tension at the film gate.



Victor materials and equipment are approved for purchase under the National Defense Education Act.

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the best looking lawns are cut by a Locke

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Be proud of your lawn! Cut and trim it, economically, beautifully with a Locke. Your Locke Service Dealer is ready to show you its many exclusive features . . . demonstrate its lifetime values. See him today!

2 Models—Single or Triplex; 4 Basic Sizes—25", 30", 70", 75"; Plain or reverse.

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A product of The Locke Steel Chain Co.

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Montgomery Clocks offer program-setting by turning clock hands; insures perfect synchronization. Push buttons for special signals.

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Montgomery Clocks give maintenance-free operation. Simple, reliable design proven by a quarter century of dependable service.

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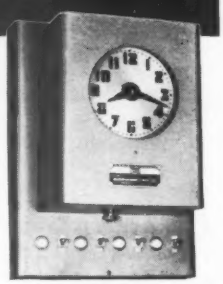
Set Montgomery Clocks and they stay correct! No wonder more and more schools are replacing complex, expensive-maintenance systems with Montgomery Synchronous Program Clocks. Get more facts from your school supply dealer or write for literature.

FOR NEW CONSTRUCTION: Have your architect specify Montgomery Program Clocks and make sure of accurate, trouble-free service.



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MODEL M & L

Automatic Calendar Switch Regulates Signals on Days, Nights and Weekends; Provides Alternate Schedule Operation

Montgomery MFG. CO., INC.

OWENSVILLE, INDIANA

Research (continued)

frame, aluminum window and brick cavity exterior walls, and concrete foundation on grade. It is circular in plan and airconditioned. The best location for a fallout shelter in the school is the area just below the library floor in the academic unit. This space has a gross area of 10,500 square feet and a shelter capacity of 700.

Unless a shelter's site is more than fifty miles from a major target, it is doubtful that shelters built with attenuation factors of less than several hundred (a one-story house without a basement has an attenuation factor of about 2) would offer much chance of survival. Within a 50-mile radius of a one-megaton surface burst, a gamma ray attenuation factor of 1,000 (the amount of shielding necessary to reduce the inside dose to 1/1,000 of the outside dose) is necessary.

Shelter entrances must be designed to attenuate as much radiation as an exposed solid wall. Therefore, the thickness of the shielding at the entrance must be at least as thick as the solid wall. And because nuclear radiation is scattered around corners, entrances need the equivalent of two 90° turns to reduce this scattered radiation.

Minimum ventilation should be 3 CFM of outside air per person which would permit only light activity by the shelter occupants. There should be about one ton of refrigeration per twenty occupants and filtering equipment for outside air.

Prompt decontamination might be an alternative to shielding as a method of reducing the radiation dose. But it would have to provide a reliability at least equal to shielding and would have to be capable of removing 99.9 percent of the radioactive material from the roof and adjacent ground. This presents enormous problems: conventional built-up roofs with aggregate surfaces would require much more elaborate equipment than a simple spray-down device, and remotely-operated equipment would be needed to remove ground contamination to a distance of at least several hundred feet.

In regions where population densities are low and there are fewer likely targets, it seems possible to apply a probability approach developed by the government to determine the need for a shelter. Then the degree of shielding can be calculated. We based our approach on a five-year study of winds at 80,000 feet, at forty-one weather stations across the country. We prepared fallout charts for each day at each weather station and combined them to form fallout probability patterns for each station. We divided probabilities into four conditions: condition-one areas have a better than 90 percent probability for needing protection; condition-two 70 percent; condition-three 30 percent; and condition-four less than 30 percent.

The cost in a condition-one area (eight miles from blast) ranges from an estimated $177,100 for a minimum quality shelter to $222,300 for a good quality shelter. Condition-two (thirty miles from blast) ranges from $172,600 to $217,800; condition-three (100 miles from blast), $162,-100 to $207,300; and condition-four (190 miles from blast), $121,600 to $166,800. These costs are for shelters constructed independently of a school building. Costs for shelters constructed as *part* of the school are from 22 to 63 percent less. (Good quality shelters have these advantages over minimum quality shelters: air conditioning, resilient tile flooring, acoustical tile ceiling, high level of electrical illumination, and conventional group toilet facilities and fixtures rather than trough urinals and chemical containers.)

Conclusions. If the present Boswell school had been designed to include a dual-purpose shelter (classroom as well as shelter use) with good fallout protection, the additional cost would have been approximately 10 percent more than the original cost. It costs considerably less to construct shelters in conjunction with other facilities, such as schools. It is entirely feasible, both economically and functionally, to provide fallout protection to a school building without sacrificing conventional design features of classrooms. ●

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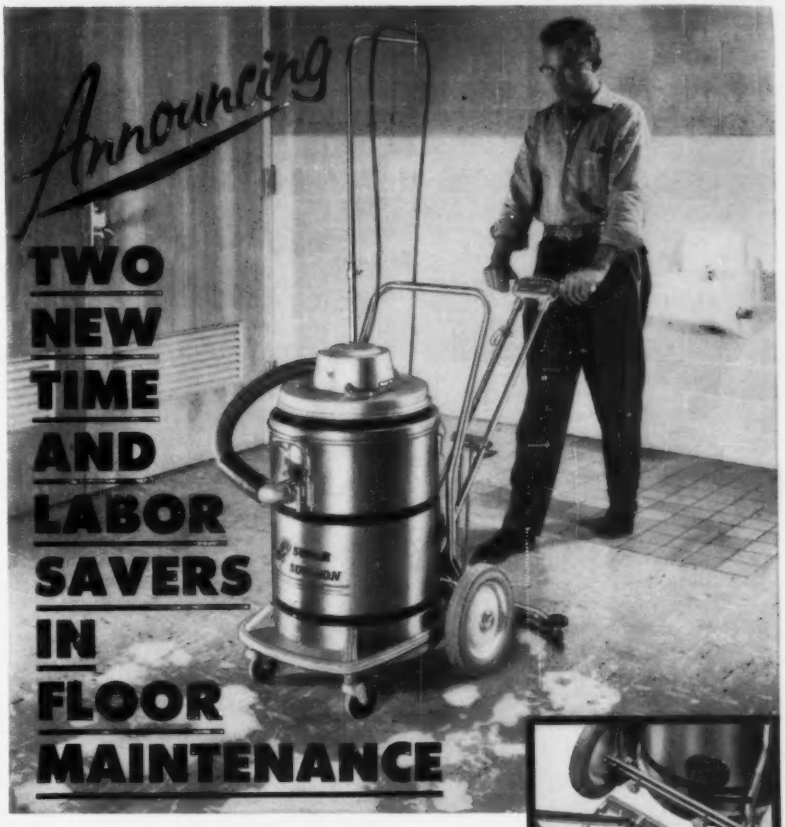

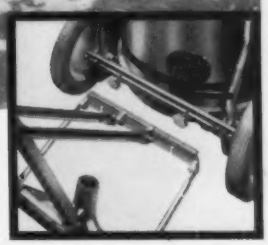

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SAVE all that labor and time you would spend attaching and removing a squeegee attachment to a heavy duty suction cleaner.

SAVE all the effort and time you would spend keeping the suction cleaner cord out of the work area. Super now provides 2 long-desired, new, exclusive features.

❶ For massive scrub water pick-up you can attach or detach the big Super Squee-Zee 30 floor drying attachment to a Super Model BP-2 or RS-1 heavy duty suction cleaner in ten seconds without any tools—just hands.

❷ The new, exclusive Super Cord Control Mast keeps the cord out of the way at all times, permitting the operator to maneuver the cleaner freely without stopping to pull the cord away from the path of the machine.

Guide wheels mounted on the ends of Super Squee-Zee 30 blade unit permit free use of the Squee-Zee 30 close to walls and other surfaces without damage or slow-down in operation.

The new Super Squee-Zee 30 provides an extra large suction chamber that will handle wet pick-up as fast as the operator can walk, leaving a 30" swath of perfectly dry floor—no streaks, no wet spots, no wheel marks.

Makes your regular Super suction cleaner a big volume floor drying machine at small cost. Dries up to 26,000 sq. ft. per hour.

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The Super Cord Control Mast attached to the cleaner extends up and away from the cleaner. The control arm can be swung in any direction, keeping the cord away from the work.

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He is one of West Chemical's 457 school experts who offer you free personalized technical service

SHOWER ROOMS CLEAN AND GERM FREE. Hasbrouck shows Head Custodian Al Ward how hospital-proved Wescodyne® kills germs as it cleans, prevents cross infection—everything from staph to athlete's foot. Non-toxic Wescodyne costs less than 2¢ a gallon at dilution, is also used in washrooms, cafeterias.

MAPS OUT GYM-FLOOR STRATEGY. Dick meets with Supt. of Buildings Wuster (left) and Maintenance Supv. High to develop efficient program. Custom plan improves all phases—sealing, finishing, maintenance.

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CLOSE-UPS

Eugene Gambril

"In some ways, my responsibility is to work myself *out* of a job while working other men *into* jobs."

This frank appraisal of his position is characteristic of one of industry's leading training directors, American Oil's Eugene Gambril. On the staff of the company's Whiting (Indiana) refinery, Gambril works at keeping manpower as modern as the newest machines. He represents a breed of educational executive who is becoming more important each day; for no one doubts that one of the key indicators of our national economic health is the quality of our skilled manpower.

A local Whiting boy, Gambril joined the training staff at the refinery back in 1948, rising to supervisor in 1952. "In that year," he told Overview, "we experienced a student population explosion of our own. The refinery had about nine hundred 'craft-helpers' on the job then. Our task was to get these men into and through a four-year apprentice program. It was probably the largest apprentice program in one plant anywhere in the country and posed an enormous problem of educational administration."

Gambril drew about him a teaching staff which fulfilled the three-fold needs of in-plant training: instructors with special technical knowledge, instructors with practical experience, and instructors with professional teaching experience. A year later, American Oil opened an educational building within the refinery compound (the Whiting installation is the company's largest refinery complex). The teaching staff, working as a faculty building committee of sorts, contributed their educational specifications to the company architects.

"Since that massive apprentice program was begun," says Gambril, "we have been upgrading our manpower in two ways. First is our training in process fundamentals and individualized unit programs for refinery operators. We have an apprentice program for each craft run on company time. We also run courses for highly specialized technicians and for the plant's administrative staff. All our programs are job-oriented.

"Our second approach is to prepare the men on the line to assume responsibility for their own in-plant programs. I believe in-plant education works better when the men carry it on by themselves. Management selects key line employees and we train them in basic teaching techniques. We help them schedule their classes and set up objective measures of trainee progress. We also teach them how to make good use of our audio-visual aids—projectors, films, mock-ups, simulators, charts, and other materials—which are invaluable for industrial training. As a result, the less our trainers are involved, the more successful a particular program is. In effect," Gambril smiles, "we work ourselves out of a job."

But all signs point to more, rather

Industrial trainer.

Circle OV-124 on reply card, last page

LANGUAGE LABORATORIES

NEW INSTRUMENTS PROVE HEADSETS NEED NOT BREAK DOWN

The **PROFESSIONAL** *Model LT-100 Dynamic*

The **STUDENT** *Model LT-500 Magnetic*

DYNAMIC or *MAGNETIC* HEADSETS

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Dynamic and Magnetic Headsets are rapidly becoming a "standard requirement" in the original installation of language laboratories and as "automatic" replacements for older, less effective, crystal and ceramic type headsets.

Now PM & E's introduction of the Professional Model LT-100 Dynamic and Student Model LT-500 Magnetic headsets provides a new degree of wide range performance and dependability.

Dynamic and Magnetic acoustic principles have created headsets impervious to humidity and guaranteed resistant to concussions that normally put crystal or ceramic headsets out of commission.

The importance of these outstanding features has been universally recognized as Dynamic and Magnetic headsets have become the first to be accepted in every state.

Whether you are considering the initial installation of a language laboratory or replacement of some of your present headsets, ask your acoustic supplier about the superior technical features incorporated in PM & E's new Dynamic or Magnetic headsets . . . features that provide exceptionally long term, maintenance-free operation.

Convenience Feature: The Professional Model LT-100 features convenient and time-saving "in the classroom" cord set replacement.

For complete information on these new headsets and the name of your nearest PM & E supplier, write:

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Here's a dual formula powder that removes stains, burnt-on food, oxidation from stainless steel and copper. Cleans better than cream, without scratching, and polishes, too—at a much lower cost. Convenient 19-oz. shaker can. A full line of Babbitt products is available through your sanitary jobber.

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Caddy versatility
T-160
FOR TRANSFER OF DISHES, TRAYS AND RACKS
There is a Caddy designed to do your job better. No rehandling — cuts labor cost! Durable, economical and attractive . . .Welded stainless steel and rounded interior corners
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For complete information write for catalog No. 61-0
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Close-ups (continued)

than less, of an industrial training job in the future. Gambril recognizes that there is "no question about the desire of employees to get ahead through education." American Oil, national manufacturing and marketing affiliate of Standard Oil Co. (Indiana), like many top companies, has an educational refund program for its full-time workers for job-oriented education they pursue outside the plant. Many take advantage of the education centers in nearby Chicago and the Calumet region; others enroll in home-study courses. Employees are appraised concerning their job performance and potential, then counseled on ways they might satisfy their need for more education.

Gambril himself exhibits an insatiable thirst for knowledge. He has, at one time or another, attended the Universities of Illinois, Indiana, and Chicago, concentrating in business administration, speech, and law. He has also taught economics and group leadership at the University of Chicago's Industrial Relations Center. At the age of 46, he has amassed an impressive total of semester hours, but so far has not satisfied anyone's requirements for a baccalaureate.

"At this point in my career, the actual sheepskin doesn't seem so all-important. But I believe anyone now coming into the field of industrial training must have a solid academic background in education and industrial psychology. When I entered the field right after the war, it was new and you learned what you had to learn as the problems came up. Today, we can identify the big problems in industrial training. It's possible to get good formal training to prepare for these problems.

"I have no regrets about my own professional climb, but it was hard and slow and I would not recommend it to others entering the field today. We need professional preparation to do professional training jobs. The opportunities are there. Business and industry, on a national scale, have the responsibility, the need, and the objective of procuring well-trained professionals for these jobs in the future." •

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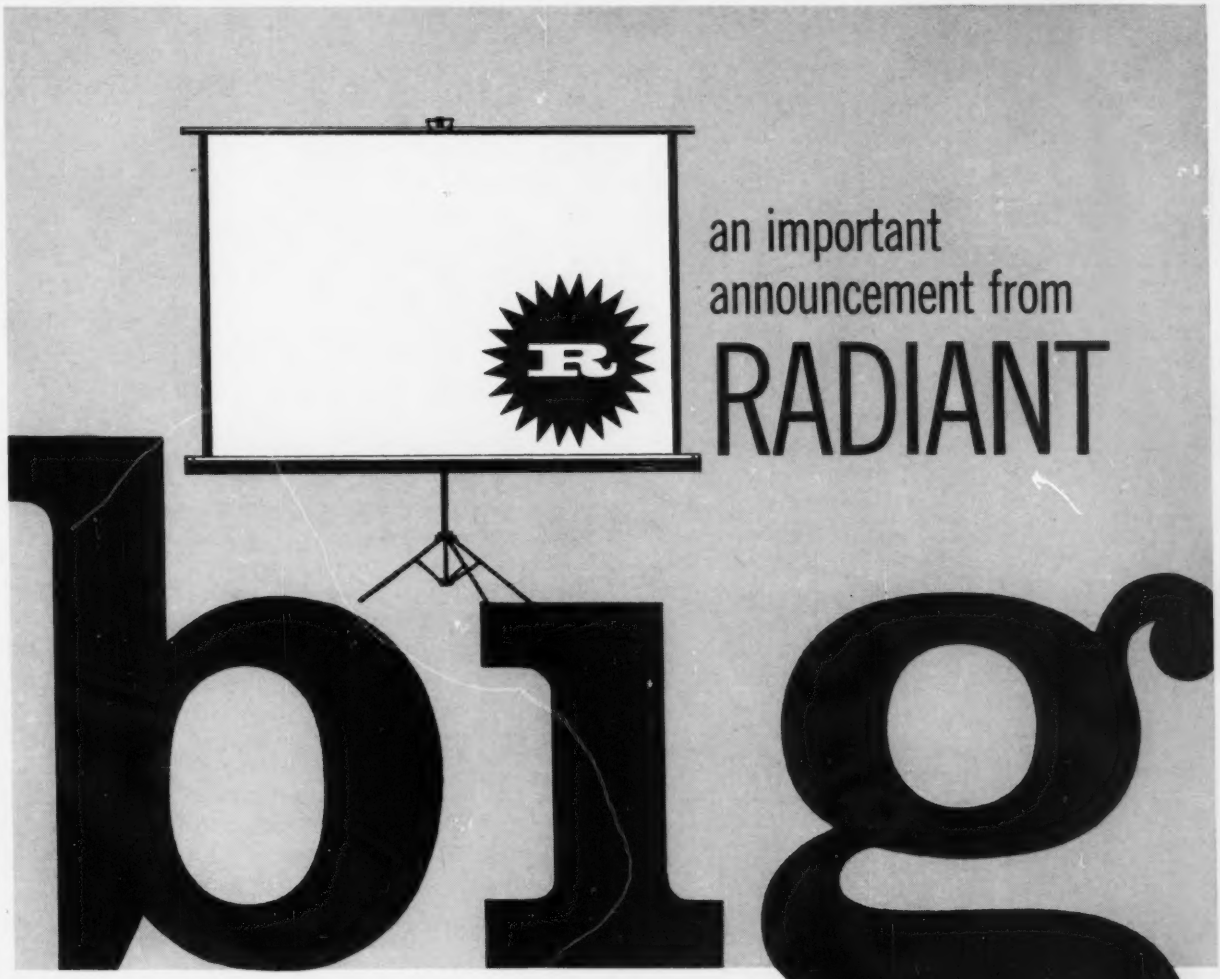

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From Washington

New Battlegrounds For "Old" Soldiers

A GROWING NUMBER of the *curricula vitae* in the files of the Retired Professors Registry in Washington are not those of former faculty members but the service records of military men who want a second career in education.

The Registry, a non-profit referral service organized in 1957 by the American Association of University Professors and the Association of American Colleges to help retired educators locate positions in other institutions [see "The Retired Educator," p. 37], has some 800 retired or about-to-be-retired educators on its current list. Of these about one-third will be placed, most accepting one-year appointments to meet an emergency.

More than 500 colleges and universities have used the Registry. The State Department, the United Nations, the Fulbright Awards Committee, and the John Hay Whitney Foundation also ask the Registry to nominate distinguished professors for awards and special assignments.

The retired military men are not usually interested in appointments for only one or two years, except perhaps as the start of a new career. Most are in the prime of life and excellent health; three-fourths are less than 45 years old and nine-tenths are under 50. A Defense Department survey found that the median age of 25,000 military people interested in teaching after retirement was *lower* than that of 62,000 representative college teachers studied by the NEA. Even if they start at the bottom, retired military personnel can thus expect to reach full professorial rank by the time of their second retirement at age 65.

Though an unconventional source of teachers and administrators, the military services can make a substantial contribution to education. The NEA found only about 200 (2 percent) of the new teachers in 1957–59 coming from career military service, and the American Council on Education reports that less than 700 (under 1 percent) of college faculty members surveyed were formerly in uniform. In contrast, the recent Defense Department survey of officers expecting early retirement found that almost 3,000 with a strong interest in college teaching would be available annually for four years.

Most of the quarter-million people now receiving military retirement pay served prior to World War II and for thirty or more years. Beginning in 1961, however, the retirement lists will be swelled by officers and enlisted personnel, male and female, who began their military service during World War II. By 1970, our civilian society will include three times the present number of military retirees, most of whom will be receiving half their military base pay after only twenty years of service. But their acceptance in mufti is still unsure.

"We have had one unfortunate experience with a retired military person in an academic administrative position," the president of a large state university told the ACE's survey, "and consequently are prejudiced against employment of former military officers at this level."Another president commented: "I am not sure that retired military personnel have the requisite flexibility . . . to make satisfactory liberal arts college teachers."

These attitudes are probably the result of contact with or employment of the older generation of retired military people, in the opinion of those encouraging recruitment to education from this source. Dr. Lloyd E. Blauch, assistant director of the Retired Professors Registry, himself retired from the U.S. Office of Education, characterizes the military men in a more sanguine vein:

"Some have had a considerable amount of graduate education in

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Washington (continued)

civilian institutions or in advanced military colleges, or both. Most have had varied experience in administration, and some have traveled widely. A considerable number have had extensive teaching experience as part of their military activities. Some of them wish to pursue further graduate study after they have been employed."

Almost two-thirds of the officers interested in a second career in education have qualifying college degrees, one-fifth have degrees beyond the baccalaureate. Others anticipating retirement are completing their degree requirements by taking advantage of ROTC assignments, USAFI correspondence courses, or the military branches of the Florida State University and the Universities of Maryland, Alaska, and Hawaii.

Fortunately, nearly half the officers surveyed by the Defense Department felt they were best qualified to teach science, mathematics, or modern languages—fields where the shortage is most severe. Many may need to be brought abreast of their field, though, and most would need education courses to meet certification requirements.

Several institutions, including Purdue, Duke, Brown, Catholic, and Roosevelt Universities, have successful programs to "retread" retired military personnel in preparation for teaching. The Defense Department is distributing 90,000 copies of "Teaching: A Second Career," a pamphlet prepared by the ACE and NEA to acquaint retiring officers and men with the opportunities in education as well as some of the problems they are likely to encounter.

By far the major problem is the reluctance of many educators to seek and welcome to the ranks of the profession former military men and women, no matter how well qualified. The advice of one college president is instructive: "In the case of military persons, as in all other walks of life, so much depends upon the individual, his training, his personality, and his attitude." But old stereotypes die hard.—THEODOR SCHUCHAT

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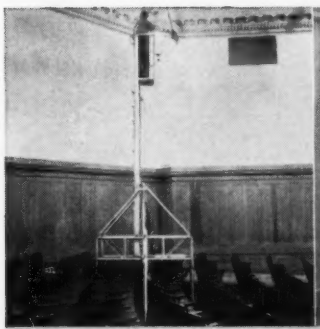

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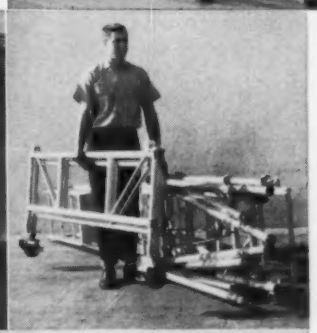

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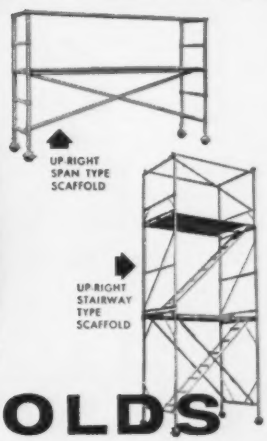

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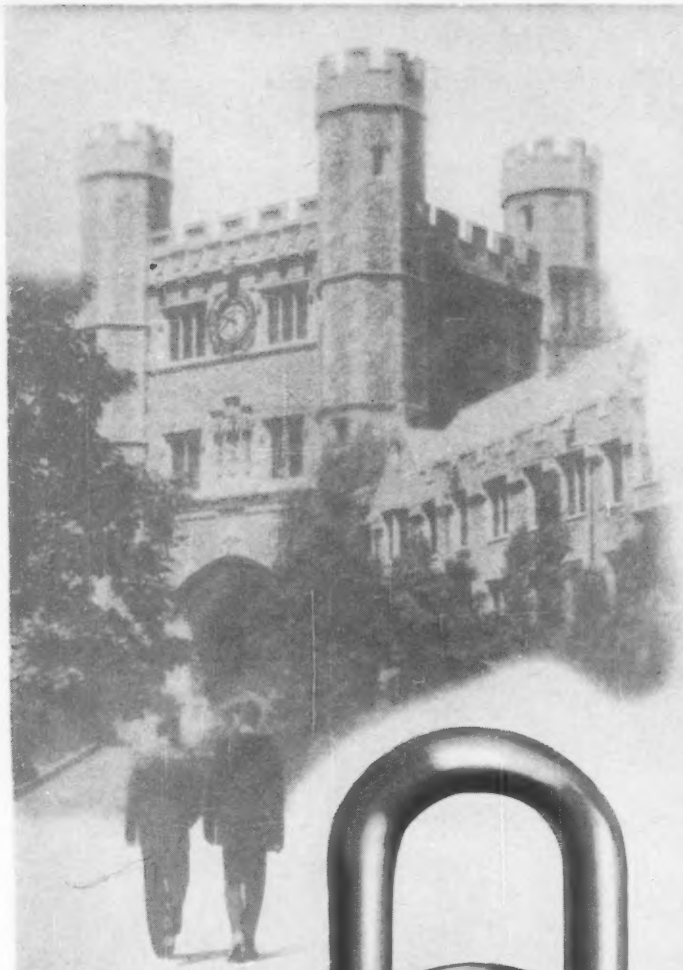

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the retired administrator

New professional opportunities await the 65-and-over

"MY COLLEAGUES envy me and wonder how I do it. Well, for one thing, the work load is lighter: a few hours of teaching and a few of administration, compared to the 60- or 70-hour week of the superintendency. As head of a new department here at San Jose, I feel that I can put in a good ten more years of service. . . ."

The speaker is Dr. Henry M. Gunn who recently retired as superintendent of schools in Palo Alto, California, and now heads the department of school administration at San Jose State College. Dr. Gunn is typical of thousands of educators—superintendents, professors, teachers, persons in every area of education—who are going on to new positions after being retired.

Because of constantly increasing shortages of teachers and administrators, education has a responsibility to see that Dr. Gunn and his retired colleagues—many of them still capable of doing their best work—are kept on the job if they are in good health and still have zest for work.

Several organizations are busy helping retired educators find suitable positions. Many schools and colleges are liberalizing their retirement policies to let educators join or remain on their faculties in advisory positions as professors emeriti or on year-to-year teaching assignments.

The most important organization helping senior educators prolong their careers (in far more categories than its name suggests) is the Retired Professors Registry in Washington, D. C. Since its founding in 1958, the Registry has referred more than 7,500 retired educators as candidates for more than 2,500 jobs in education. Nearly 1,000 of them have found positions through the service.

The Registry is headed by Louis D. Corson, former

dean of men at the University of Alabama, who brands premature retirement as "sheer waste." It was created by the American Association of University Professors because of the paradox in education: though nearly all of the accredited colleges and universities in the country have compulsory retirement (varying from age 60 to 70), the majority of them are struggling along with understaffed faculties.

The Registry operates with a $205,000 grant from the Ford Foundation and its free service is available to any retired university or college professor. It serves as a referral, not a placement, agency. Once the name of a qualified person is given to an institution, negotiations are the responsibility of the individual and the institution. However, the Registry tries to match an educator's training and experience with openings at several schools and colleges.

The service has been so successful that it has recently been extended to certain retired public and private school administrators, military personnel (many of whom hold advanced degrees), government employees, and business and industrial leaders. For example, a program has been established at General Electric whereby management retirees wishing to teach on the college level may use the Registry. The program is the result of a GE-sponsored survey that indicated high interest among them in entering post-retirement teaching.

Colleges are enthusiastic in their praise of retirees they've hired. A college president says this of a 70-year-old professor referred to him by the Registry: "He has been a great asset despite his age. His mind is alert, he participates in the total program of the college, and has done a marvelous teaching job."

Small-College Openings

Another organization that has helped extend the careers of retired professors who want to keep working is the John Hay Whitney Foundation.

Every year, names of about-to-retire professors are submitted to the Foundation, screened, and passed on to a number of small, liberal arts colleges. Professors selected by the colleges and who accept appointments begin their teaching stints the semester following their retirement. Appointments are for one year and are not renewable, though many are asked to return at the expense of the college.

Dr. Ernest O. Melby, Distinguished Professor of Education at Michigan State University since his retirement from New York University, says: "Professors retiring from large and famous institutions should not think it beneath their dignity to accept posts at smaller colleges. If they do, they're going to be very mistaken. They are wanted and needed at these schools. By taking positions at them, distinguished educators can render a much-needed service to education."

Sometimes a well-qualified professor will miss out on an award because there is no demand for persons in his field, but generally the Whitney Foundation program has been successful. Originally its main purpose was to strengthen the humanities departments of host colleges, but it has been expanded to include professors from many other fields. Money for the appointments is provided on a 50-50 basis by the colleges and the Foundation. More than 120 professors have benefited under the program.

A typical John Hay Whitney scholar is Dr. Robert C. Whitford, dean emeritus of the division of general studies, Pratt Institute. Dean Whitford began his retirement as Visiting Whitney Foundation Professor at Wilson College in Chambersburg, Pennsylvania, in 1957–58 and returned there as a lecturer the following year. Since then he has served as academic dean of Berry College, Mount Berry, Georgia, and currently is a visiting professor at Colgate University.

Increased efforts are also being made to retain the services of top elementary and secondary school teachers who have reached retirement age, and want to keep on teaching.

In New York City, where 7,900 teachers became eligible for retirement this year, a plan has been proposed to develop a "Teachers Emeritis" program. It would put teachers on two-thirds pay at retirement to continue teaching.

Should the plan be approved, many retired teachers could be kept in the school system at less cost to the city, but at higher take-home pay than before retirement. The plan would work this way: a teacher earning $8,000 could retire at age 55 after a minimum of thirty years' service. Were he then to continue teaching, he would annually receive a pension of $2,400, annuities of $1,600, plus $6,000 in salary—a total of $10,000. In turn, the city would have an experienced teacher for $2,000 less in salary per year. Final retirement would be mandatory at age 70. Not all teachers would be eligible; each would be selected through recommendations by principals and assistant superintendents. Final action on the plan by the state legislature is expected early next year. Meanwhile, city teachers who are retired and who have passed a physical examination may continue teaching on a per-diem basis as substitutes. Demand for qualified teachers is so great that they are able to teach practically full time.

In many states, retired teachers and administrators may accept a new position in education as long as it doesn't come under the jurisdiction of the school system that retired them. For example, a Pennsylvania high school teacher could retire from a public school system and then start teaching in a private secondary school, within the state or elsewhere, without jeopardizing his pension or other retirement benefits.

Though a considerable number of retired educators obtain new positions, there are many more who do not, either by choice or because many public school systems are reluctant to hire retirees even if they are outstanding teachers or administrators. The reluctance stems mostly from a desire to maintain a balance in age among the faculty and from a desire to have teachers who might remain in the system for many years, giving continuity and stability to the faculty.

In general, the countrywide corps of retired public

(*continued on page 40*)

A NEW ROLE FOR THE HERR DOKTOR

IN TITLE-HAPPY Germany, no academic Herr Doktor would dream of concealing his exalted pedagogical pedigree, and if he's a professor his full public title becomes "Herr Professor Doktor Soandso." The mere possession of a Doktor title can bring its owner 22 percent higher pay over the non-titled employee on the same job.

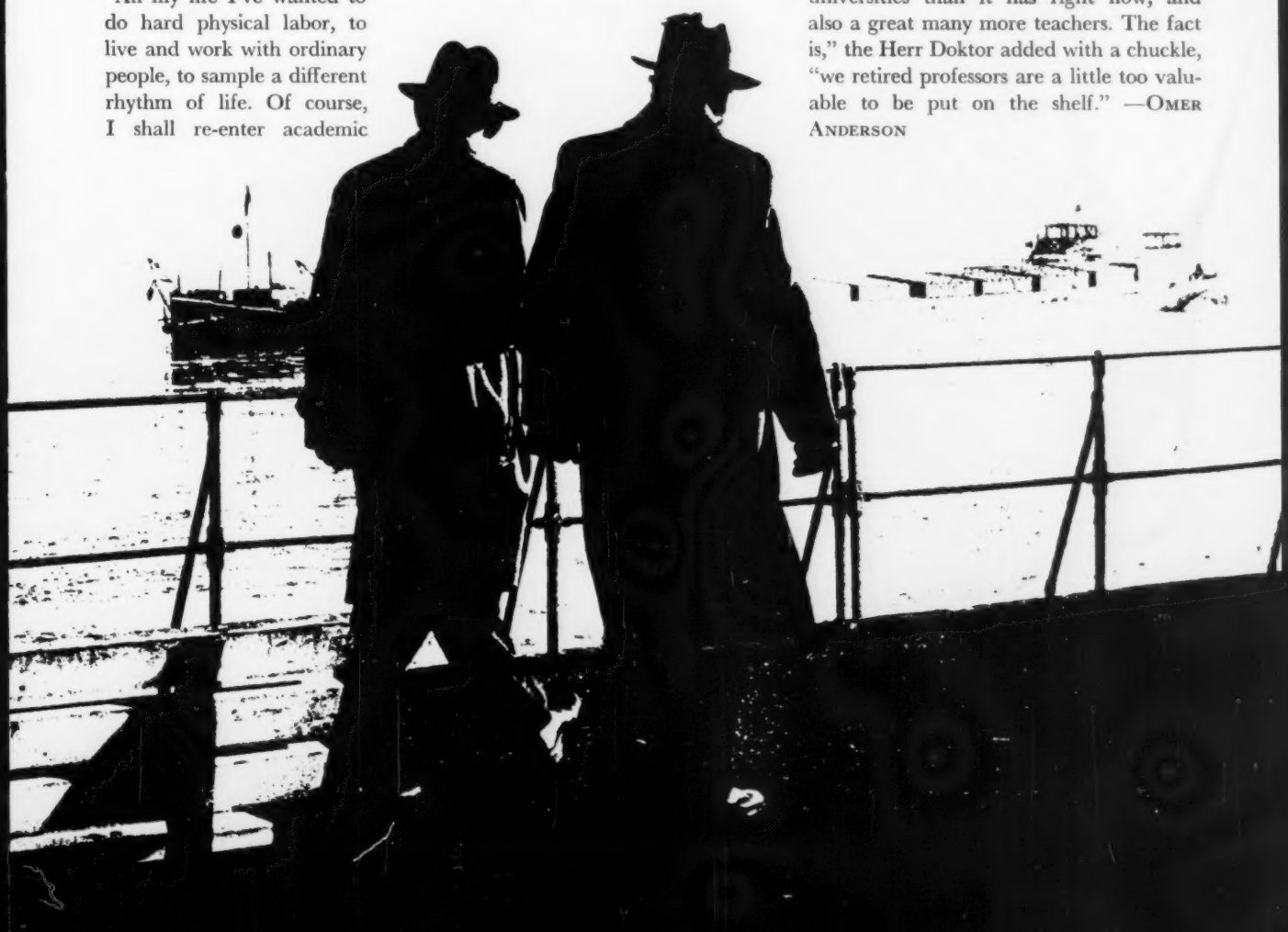
All of which is to introduce perhaps the most unusual pedagogue in all Germany: Herr Professor Doktor Bernhardt Reutlingen. Professor Reutlingen is unusual because he is an ordinary sailor on a Rhine River barge and because none of his bargemates knows that he is professor of exalted academic status. (He's shown at left in the photo walking along a Rhine quay with a professor colleague, his barge in the background.)

Before the war, Dr. Reutlingen would have continued teaching history at the University of Tuebingen until his physical and mental powers deserted him. But now the German universities, in response to pressure from young teachers, are adopting American-style retirement procedures. With mandatory retirement age in most of them set at 67, the venerable Herr Doktor is vanishing from German university lecture halls.

When Dr. Reutlingen turned 67 last year, he exchanged his academic robes for workman's clothes. While his barge was tied up at Duisburg loading Ruhr coal, he explained his transformation from professor to sailor: "All my life I've wanted to do hard physical labor, to live and work with ordinary people, to sample a different rhythm of life. Of course, I shall re-enter academic work, but meanwhile I'm building up my health and sampling the first real freedom from the academic yoke. It's helping me put my thoughts in perspective and it's given new zest to my life."

The professor's move from the classroom to a coal barge sheds significant light on the drive to retire oldsters from their classrooms: Germany, like the rest of the continent, is in the grip of a severe shortage of skilled labor. Any retired teacher can count on getting another position—almost anything within his capacities—with little difficulty. There are recently retired teachers doing every line of work from scientific research in Ruhr steel laboratories to selling used cars ("an excellent situation for observing human nature," reported an ex-professor of psychology in West Berlin).

European integration is also creating new opportunities for the retired schoolman. With all European universities retiring their professors at early ages, the retirees are now able to get appointments as exchange professors at other universities. Dr. Reutlingen, for example, plans to take an appointment at Grenoble this year and then hopes to teach at the university in Rome and do research for a book. And after that? "Well, I am very interested in adult education. I think this is where we Germans lag badly, and I would like to organize adult classes. Germany needs a great many more schools and universities than it has right now, and also a great many more teachers. The fact is," the Herr Doktor added with a chuckle, "we retired professors are a little too valuable to be put on the shelf." —OMER ANDERSON



school teachers and administrators remains largely an untapped source of manpower, even though the supply of qualified educators is not growing as fast as the school population and despite a willingness among many retired educators to continue working.

However, wider acceptance of the practice of hiring retired educators seems to be developing slowly but steadily, especially in areas where teacher shortages are acute. New colleges and private secondary schools manifest considerable willingness to hire retirees, no matter how old they are, as long as they can perform well in the classroom or in administrative posts. Such persons attract outstanding young instructors and students (who covet the opportunity to work with top-notch teachers) and accelerate improvement of a college's general reputation.

Not all those hired have come exclusively from the ranks of retired college and university professors, either. Some are former public school principals or superintendents qualified to fill college-level teaching or administrative posts.

One institution, the University of California's Hastings College of Law, is staffed entirely by retired law professors culled from the staffs of the country's top law schools. "The idea that a man is no longer a good teacher just because he has celebrated a certain number of birthdays is ridiculous," says Dean David E. Snodgrass, whose faculty has an average age of 73-plus. Snodgrass, who has hired men as old as 80, says the twelve members of his "Sixty-five Club" (Hastings faculty members have to be at least that age) are alert, vigorous, salty-tongued teachers, deeply grateful for the opportunity to continue working. Former Harvard Law School Dean Roscoe Pound calls the Hastings faculty "one of the strongest in the country."

Increasingly, retired educators are going on to jobs in government, industry, or with philanthrophic groups, and many are active as consultants to business and other organizations. One of them is Dr. Willard W. Beatty, former federal director of Indian Education, now executive vice president of the Save the Children Foundation, an international child welfare organization. "The job has become more demanding lately—but also more interesting," Dr. Beatty says. "So far I feel I've met the demands and been received by my co-workers with an attitude of friendly cooperation. This may be because the organization I'm with is small, or perhaps because it is in a less competitive field than education."

Whether a person expects to continue working after reaching retirement age, several important preparations must be made to insure adequate housing, retirement income, and health protection.

Many educators solve their housing problems by buying trailers, or smaller homes, or by renting houses or apartments. Any money thus saved is available for investment to provide extra retirement income. Dr. Hollis P. Allen, former head of the School of Education at Claremont College Graduate School in California, told OVERVIEW he met his retirement housing needs by "building a smaller home, tailored to fit reduced needs, several years before I retired." His new home is designed for "easy upkeep with plenty of space for study and recreation."

Retirement Income

Regarding income, 1961 U. S. Bureau of Labor statistics show that a retired couple aged 65 or older in reasonably good health can get by on incomes ranging from approximately $2,700 in Houston to $3,400 in Chicago. Housing takes the biggest bite out of income, the Bureau says, with food and medical care next in order.

Changes in the Social Security Law and improved medical protection plans for older people are brightening their prospects for long and comfortable retirements. For example, the age at which a person may begin drawing Social Security checks has been lowered from 65 to 62. Under the new provision the combined, tax-free, monthly pension for a 62-year-old husband and wife is about 20 percent less than if they wait until age 65 to retire. However, if they are only partially retired during the ensuing three years, their pension will be boosted somewhat when they reach 65.

Since life expentancy limits have continued to rise steadily, insurance companies have come forth with a variety of health insurance plans that provide adequate medical and surgical coverage for older persons at fairly reasonable costs. Accordingly, careful attention should be given to seeking out the plan that is most appropriate to an individual's needs and income. To avoid major medical expense whenever possible, frequent and thorough physical examinations should be mandatory for all educators over 45.

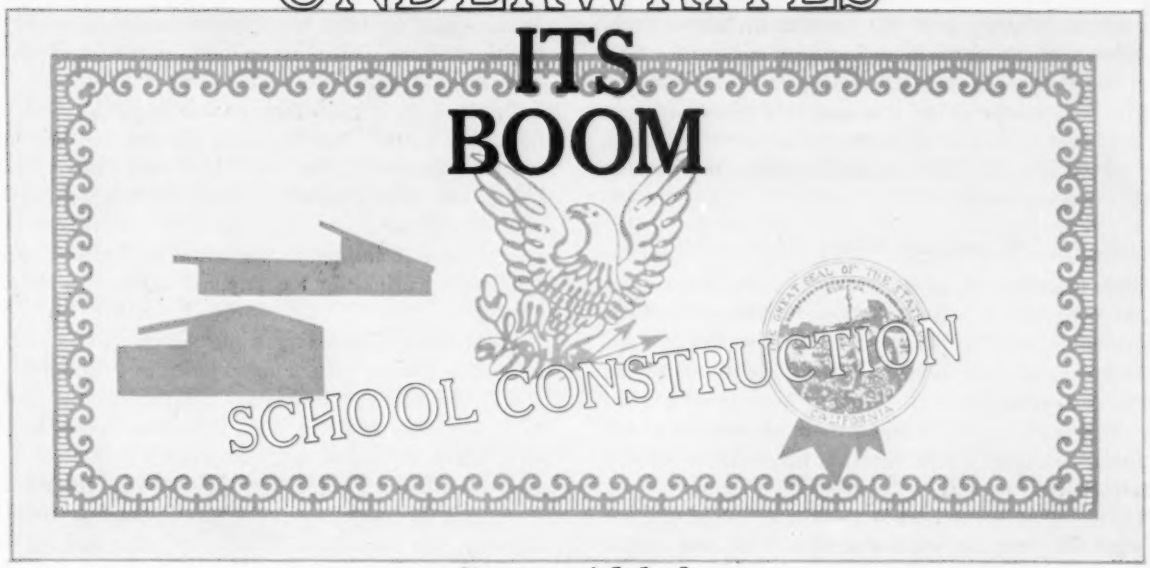
Preparations such as these must be set in motion *before* retirement. Middle-age is not too soon to prepare for the economic and health aspects of retirement or reduced activity.

Among educators, the consensus seems to be that an individual should continue some professional activity as long as he is physically and mentally competent.

"I don't care how old an educator is," says Dr. Willard S. Ellsbree, professor of education at Teacher's College, Columbia University. "As long as he can perform some useful task, he should work. Otherwise, both the educator and society are losers." Professor Ellsbree says that school and college administrators should be particularly careful in planning retirement activities. "Usually they have been away from teaching for some time and, therefore, are less likely to perform effectively in the classroom," he says. "Most would be wise to explore ways they can put their administrative talent and experience to new use in education or elsewhere." He advises those who look forward to doing "a lot of writing" to be wary, since publishers do not trample each other in a rush to sign contracts with retired educators. Dr. Ellsbree believes the best bet is to collaborate with younger colleagues.

Summing it up, Dr. Henry H. Hill, president emeritus of George Peabody College for Teachers, Nashville, Tennessee, says: "The retired educator needs somewhere to go, something to do, and someone to care." ●

HOW CALIFORNIA UNDERWRITES ITS BOOM



State aid helps fill a staggering need: 38 new classrooms every day

by Herman O. Ruhnau and Thomas Deterling

LAST YEAR California built 10,000 public school classrooms and was still 4,000 shy of the number it needed. But this requirement of thirty-eight new classrooms every day isn't the extent of California's building problem. In addition to population surge is the matter of population shift which has created "wealthy" and "impoverished" school districts. California's solution to this problem is a tribute to the many unsung (and sometimes maligned) members of the Legislature, Allocation Board, and Education and Finance Departments. With a little evidence and a lot of foresight they have been able to provide schools for the almost unbelievable increase in school population.

But first, the background.

Years ago, California was made up of isolated communities, each with its own commercial, industrial, and residential areas. The State Legislature ruled that for purposes of construction (capital outlay) a school district's bonding capacity could not exceed 5 percent of its assessed valuation for each grade level (elementary, secondary, or junior college) maintained. At 5 percent, the high assessed valuation of the industrial and commercial areas gave the districts adequate bonding capacity for the schools needed in the low-assessed-valuation residential areas. This formula has been retained through the years.

Then the three problems.

First was the steadily increasing population in the state. Between the 1950 and 1960 censuses California grew almost half again as large, accounting for nearly one-fifth of the nation's population rise. And as if the gold rush were still on, 1,500 people still migrate to the state *every day.*

Second was the post-war trend—now an established pattern—of suburban living. Most of today's workers commute from bedroom communities—desirable residential areas for growing families except for one fact: these communities have a low tax base because they lack industry and therefore have a low assessed valuation against which the district can take its 5 percent bonding capacity for school construction. These are termed the

"impoverished" districts. On the other side of the coin are the industrial centers with their high tax bases but few school-age youngsters; these are the "wealthy" districts.

Third was the excessive tax burden which would be thrown upon all persons of a district, new residents and old, if an attempt were made to force an immediate repayment of needed school facilities. Schools, as presently constructed, should have a life expectancy of fifty years. New families and new generations are bound to come and, as long as they are able to enjoy the existence of the schools already with the community, they should assume their fair share in providing them, rather than reap the benefits of the few hard-pressed forerunners.

The state's solution to this manifold problem is, in effect, a tax equalization program—the state not being limited to district, city, or county boundaries in its taxing and borrowing ability.

When Local Ability Stops

With approval of its voters, bonds are periodically issued with which a State School Building Fund has been established. To qualify for a loan, a district must have documented needs in excess of its ability to provide them by bonding itself to capacity. To receive a loan, a district must first hold a successful election in which two-thirds of the voters approve the issuance of the *required* bonds as well as acceptance of the *state* loan. The repayment of the loan is based upon the difference between the computed yield of a 40-cent tax rate on the assessed valuation of the district, less the amount raised for debt service (principal and interest), on the outstanding bonds of the district for each given year.

For example, if a 40-cent or greater tax rate is required for debt service for any given year, no repayment is required for that year. If, on the other hand, the debt service would amount to, say, 30 cents, a repayment of only 10 cents would be required, etc. These repayments continue for a period of thirty years, after which the district is no longer obligated. If a multipurpose room is involved, an additional ten-year repayment period is required. On such bases, some districts will obviously never make full or even partial repayment. In this manner, though individual taxpayers of state-aided districts are making full repayment effort, the remaining balance is assumed in large measure by areas of high assessed valuation, thus achieving tax equalization.

Recognizing the time required to plan, bid, and construct a school, the needs are based on a three-year enrollment projection for elementary and a four-year projection for secondary schools. For each unit of average daily attendance (ADA) thus derived, 55 square feet of area are allowed for grades kindergarten through sixth, and 75 square feet for grades seven and eight. Area for grades nine through twelve depends on the size of individual attendance centers and is worked by formula in each individual case—generally about 80 square feet per ADA. (The square foot allowance per child is merely a manner of arriving at an equitable allowance for the purposes of the aid program's application. It was recommended by the State Department of Education after analyzing hundreds of California schools then in operation, and it considers such regional factors as climate which permits extensive use of the open covered corridor which is counted at half rather than the full area of a conventional corridor.) The area of existing facilities is then subtracted from the area thus determined, and the difference represents the actual needs of the district.

In utilizing its allowable area, a district must provide all necessary classrooms of maximum size. But because classrooms alone do not make a school, remaining square footage may be used to construct administration and health facilities, multipurpose rooms, mechanical storage and janitorial spaces, and connecting corridors.

In all of these categories, certain allowable costs are developed by the Department of Finance and kept current. Neither the estimate nor the actual contract price can exceed these allowances which are designed to provide durable schools of good quality but without nonfunctional embellishments. In addition, limited site development (primarily for physical education) is permitted.

Each school, or schools, or portion thereof, is worked to a Total Project Cost. This includes, in addition to the actual contract price, such items as site acquisition, architect's fees, plan checking fees, materials testing, inspector's salary, furniture and equipment, as well as contingencies. If the Total Project Cost exceeds the amount that could be raised by the district's bonding itself to capacity, the district is eligible for state aid for the amount of the difference.

How do the districts themselves react to the state aid program? We have worked with "impoverished" districts who struggle for years, making every penny count, because they were in a borderline condition. They could provide their own facilities, with the increase in assessed valuation barely keeping pace with increased enrollment. Or they could go on state aid if they expended their local funds to provide an educational program equal to that provided throughout the state. In many instances they have "made do" mostly because of local pressures and fear of control passing from the district to the state.

Generally, districts can continue in this manner year in and year out providing they have an even rate of growth. But often industry and freeways will come into an area and housing tracts will spring up overnight. This puts such a terrific financial burden on the district that it finally must seek state aid.

These districts are generally the easiest and most pleasant to work with. For them, the state aid program is full of pleasant surprises. After struggling for years, they are amazed at the many facilities that can be provided and they find that they have not lost local control. They are quick to understand the reasoning for many of the program's requirements and appreciate suggestions from the Department of Education and the architect in laying out

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a functional facility. They begin to realize that the Department people have seen and analyzed the good and bad points of thousands of schools and are only trying to make the next school better than the last.

On the other hand, we have seen "wealthy" districts hit with such a sudden population influx that *they* have had to turn to state aid. At first they often feel that they are getting harsh treatment from the state. Because their own earlier construction has not had to keep within the framework of state aid restrictions, many of these districts find themselves apparently penalized for having overbuilt by state standards. As they make their application and subtract existing area from computed total area allowed, they find the remainder barely adequate to accommodate their predicted enrollment.

There is yet a third type of district which we will call the ideal or balanced district. Realizing that a sudden population influx could force them into state aid at any time, they have found it prudent to study the aid program and to employ architects who can accommodate this factor in their current construction programs. They have fully recognized the educational facilities needed for each one of their school plants and provided for them to the best of their ability without sacrificing these needs to any economic expedient. Thus, when the surge comes they are ready for it. They have provided everything possible without overbuilding and, therefore, will not be penalized for excess area in existing facilities.

Earmarking the Site

Let us return for a moment to the "impoverished" districts. About four years ago another problem became apparent and its solution was pioneered by the Education and Finance Departments and the Allocation Board. It was found that in contributing all of their bond funds for construction under the state aid program, districts were left with no local funds for purchasing future sites. Huge housing tracts were going up with no plans for the schools necessary within them. True, a school district does have the right of eminent domain and can condemn land in any reasonable location. But one can imagine the local repercussions should a district condemn a ten-acre parcel of new homes—to say nothing of the costs involved, a major portion of which could readily be saved if the district were able to select and purchase the site before the houses engulfed it.

Now, districts in rapidly growing areas may apply for and purchase sites under state aid, based on a five-year enrollment projection or saturation studies, in advance of construction needs. Thus, if a district makes a master plan based upon a saturation survey, it can have a sound, economically-administered district.

Some people advocate stretching local funds by putting up "temporary" structures (not to be confused with "portable" classrooms which, when constructed to proper educational standards, provide a good way to shift with the population). The use of "temporaries" is the result of fallacious thinking. There is no greater waste of public funds than to build a "temporary" in an attempt to solve a permanent problem. The problem will still be present long after the "temporary," with its high maintenance cost, has crumbled, leaving the district to face the same problem again only with less money than before.

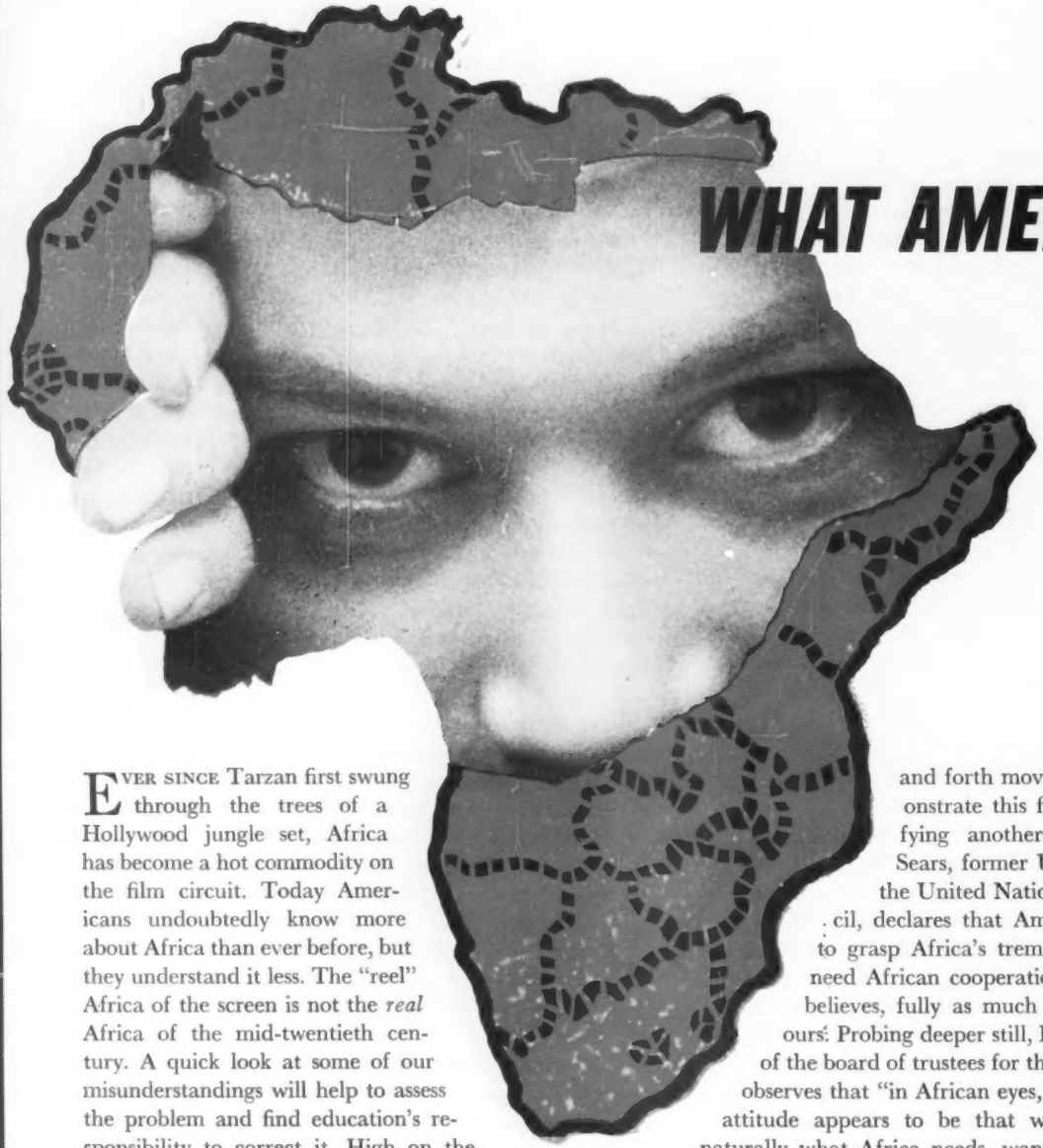
Still others have suggested a revised tax structure. Yet, in twelve years (the program came into being in 1949 after a short-lived, outright grant program proved inadequate) no one has presented an alternative that accommodates all facets of the problem.

Case of Orange County

To prove the effectiveness of the state aid program, let us look at the current status of a typical elementary school district in Orange County, an area that sees acres of orange groves turning into acres of houses almost overnight. The district comprises eleven square miles. Only seven years ago it had one school with a kindergarten and fifteen classrooms for its 550 pupils. Today it has eight elementary schools and two intermediate schools and 6,286 students. Its four-year projection points to nearly 17,000 students for which an additional nineteen elementary and two intermediate schools must be provided. It has now expended its own full bonding capacity of $1,186,000 and $5,952,000 from state aid loans. By saturation (1965 or 1966) it will have expended $3,060,000 of its own bonds and $20,753,000 of state aid funds, $3 million of which will be for advance site purchases.

This district is the true bedroom community whose home owners commute to Los Angeles, Long Beach, Lakewood, San Pedro, Santa Ana, and other points within a radius of twenty-five miles. It has no prime industry of its own except for local stores and shops. Having been on state aid, even with the construction of portions of its initial school, this district through necessity has become the ideal of balanced district. The district superintendent has, in fact, become so aware of the aid program that he has headed up committees to study its ramifications and make recommendations for improvement.

California's school aid program has operated quietly and effectively for twelve years with little state or national fanfare. Of course, as long as the Department of Education continues to strive toward a better educational concept, the Department of Finance seeks simplified procedures and more conclusive documentation, the architect incorporates new materials and building concepts, and the districts themselves attempt to satisfy the unique educational demands of their individual communities, there will always be many new conditions to be recognized and resolved. This is as it should be. ●



WHAT AMERICANS

EVER SINCE Tarzan first swung through the trees of a Hollywood jungle set, Africa has become a hot commodity on the film circuit. Today Americans undoubtedly know more about Africa than ever before, but they understand it less. The "reel" Africa of the screen is not the *real* Africa of the mid-twentieth century. A quick look at some of our misunderstandings will help to assess the problem and find education's responsibility to correct it. High on the list is ignorance of Africa's past. In 1959 a British archaeologist, Dr. L. S. B. Leakey, discovered in the Olduvai Gorge of East Africa the oldest human skull known to science. This exciting find, which may change the whole concept of pre-history and project Africa onto the center of the stage, was sponsored by the National Geographic Society of our own country. Yet how many Americans know of this work?

Dr. James S. Coleman, perceptive director of UCLA's African Studies Center, believes that our understanding of the continent is blocked by our stereotyped notions of Africa's past and by new stereotypes created by the crises which now shake the continent. To the old image of savagery and barbarism we have added the erroneous notion of a basic African unity. This latter point requires cautious handling for today a powerful hope for unity is developing out of this very diversity. The back and forth moves in the Congo demonstrate this fluid situation. Identifying another weak spot, Mason Sears, former U.S. representative on the United Nations Trusteeship Council, declares that Americans do not begin to grasp Africa's tremendous potential. We need African cooperation in this country, he believes, fully as much as the Africans need ours. Probing deeper still, Emory Ross, chairman of the board of trustees for the Phelps-Stokes Fund, observes that "in African eyes, the general American attitude appears to be that what suits America is naturally what Africa needs, wants, and should have."

The extreme poverty, particularly in tropical Africa, is only slightly understood by Americans. Walter Birmingham, formerly professor of economics at the University College of Ghana and now at England's University at Leicester, estimates annual incomes in that area to be about $60 per person. Recent studies report similarly distressing figures for other areas. The American public only dimly grasps what this means in terms of food, housing, education, and medicine. The overall level of poverty remains tragically static because of the rapid population rise. Some tribes have doubled their population in the last generation (through reduction in infant mortality and the control of disease) without being able to raise their living standards comparably. Here we see a serious situation grow ominous. Basic to the Mau Mau uprising in Kenya was the rapid rise of the number of Kikuyu tribesmen on land which was constantly being

by Giles T. Brown

MUST LEARN ABOUT AFRICA

shrunken by the encroachment of European settlers. To the Mau Mau, the solution was violence—first against his fellow Kikuyus who were cooperating with the whites and then against the whites themselves.

Anyone who has visited Africa is bound to agree with Jenkin Lloyd Jones, editor of the *Tulsa Tribune,* who wrote after his eye-opening trip to the continent: "It is about time Americans learned a lot about Africa and quickly."

What can our schools and colleges do to erase the stereotypes, undo the misconceptions, and develop awareness of Africa's social, political, and economic problems?

To begin, Dr. Henry M. Wriston, president of the American Assembly at Columbia University, suggests that schools might return to an active study of geography and adds, "I find that sixty-five years ago I was taught more about the geography of Africa than students in the last twenty years have been taught." Already some universities have organized special groups for the purpose of studying African affairs. Columbia University, for example, is adding a graduate program of African studies to its School of International Affairs curriculum.

But the responsibility goes deeper than merely grafting on more courses. The "African" content of established courses can be increased and the continent placed in proper perspective whether this be in economics, history, literature, geography, or even art and music courses. (The latter should not overlook the profound influence the 1912 European exhibitions of African art, particularly tribal masks, had on painters and sculptors like Picasso and Jacques Lipchitz, or the use many contemporary composers make of African dance rhythms.)

An obstacle of major proportions is the dearth of accurate material on Africa in current textbooks. Generally, the textbook writers and editors see Africa through the glass of Europe and date African history with the first European explorations. Among themselves, textbook authors seem woefully incommunicado on Africa's past. Wallbank and Fletcher (*Living World History,* Scott Foresman) typify most authors who see Africa as historically interesting only north of the Sahara—the civilizations of Egypt and Islam. Some authors skirt significant information even here. Roehm, *et al* (*Record of Mankind,* Heath) mention the exploration of Mungo Park to Islam's African outpost, but dismiss it as "the mysterious city of Timbuktu, an Arab capital never before visited by Europeans," ignoring that Timbuktu was actually a center of learning for Africa.

As if explaining why they write off any further scholarship, most authors spend much time describing the "hot, insect-ridden, disease-filled rain forests" of central Africa in place of any actual history. But there are some notable exceptions, chiefly Ethel Ewing. In *Our Widening World* (Rand McNally), she speaks of "different forms of political life" in Africa before the Europeans arrived. She also notes that "there were organized kingdoms with more than a million inhabitants and a complex system of government." Unfortunately, the Ghana and Mali Empires or the Songhai dynasty are not mentioned, but it is at least a start in a realistic direction. Textbook writers must seek out the archaeologists and anthropologists now combing African materials and bring this information to our students.

If schools and colleges would request that significant, accurate, and attractive materials be made available, textbook writers and publishers would undoubtedly answer the call. Joseph E. Johnson, president of the Carnegie Endowment for International Peace, suggests that "a start might best be made on the illustrations in children's books which all too often depict Africa as peopled by naked savages."

Writers should be encouraged to examine both the good and the bad in African colonial rules and then go further by comparing the social, political, and economic advances made by the ruling and the ruled. This would be immensely helpful in understanding the attitudes and reactions of both the natives and the colonizers.

But to increase the African content in our curriculums we must first educate our teachers. Higher institutions can help by collecting African materials for their libraries, providing summer workshops on Africa, and encouraging exchange professorships like those at Fairleigh Dickinson University where articulate and informed Africans are brought to the campus. Educators who want help here might follow up the current (October 22–26) conference in Boston of the U.S. National Commission for UNESCO which has invited fifty African leaders and educators to explore "Africa and the U.S.: Images and Realities." ●

Dr. Brown, chairman of the social sciences division at Orange State College, Fullerton, Cal., has seen first-hand the problems in many of the newly independent countries. He reported on Africa's educational crisis in January OVERVIEW, page 42.

WHAT AFRICANS

We in Africa have a coexistence problem of our own —the coexistence of a Stone Age culture and a modern technologically-advanced culture. We can neither ignore this coexistence nor underrate the numerical strength of the population who still lives in the Stone Age. But much more significant is the existence of a clique under the guise of an educated elite which is completely torn between the two cultures. These are the people who are assuming more and more responsibility in African leadership and who must be involved in planning the course for Africa's future. Yet these very persons may hold back progress because of their own inexperience in leadership and their skepticism borne of an incomplete assimilation into the modern world.

We cannot waste time in waiting for the right kind of leadership. It is out of what we now have that we must plan. African society is changing at such a rapid rate that it is dangerous to hold it back for lack of trained personnel. The extremely fast change in our social, political, economic, and religious concepts have made it vital that we find an instrument which can leaven and elevate the African society. No better instrument than education has been discovered.

But what is more vital is the *substance* of that education. The curriculum must be developed to meet African community needs. We cannot hope for progress as long as the school curriculum is completely divorced from the realities of its society. Nor can imposition of foreign practices bring anything but frustrations and bitterness. In my country, Kenya, the practice has been to put little emphasis on the functional use of education and to overemphasize the goal of passing examinations—those set primarily for the British students in Britain. This practice is fading and in its place must come a new curriculum designed for the needs of the Africans. But in a multiracial society, where for half a century the relation between the Europeans and Africans has been that of master-servant with the Asians as go-betweens, how can all parties participate on equal basis for the benefit of the country as a whole?

First we must decide what kind of curriculum we need in Kenya to prepare our youth for the future. We need three parallel school systems—academic, industrial and technical, and agricultural—organized and run so that no prejudice is created against any of the three. This is said in the light of what has happened in the country during British rule.

High academic achievement has always been the ambition of the few Kenyans privileged to go to school. This is a narrow outlook which we inherit from the British, and because of this we have tragically wasted educational opportunities for our children. A survey made just a couple of years ago revealed that less than 1 per-

by N. A. Othieno

MUST LEARN FOR THEMSELVES

cent of the 30 percent of the children who are able to *enter* the primary schools ever manage to complete their secondary education.

Obviously academic achievement cannot be the only educational goal if we are to enlighten Kenya's people and develop her economy. Kenya is essentially an agricultural country and so agriculture and veterinary training need major emphasis in the curriculum. But industrial and technical training, too, must be included as an essential part of the present-day requirements. To cater to all of these needs, we must set the three systems.

The next thing Africans must learn is to get the different races to work together on developing the school curriculums. In Kenya we are moving toward an integrated school system to replace the colonial racist policy of separate European, African, and Asian systems (operating under an overall director of education). Even now the African department is the best organized section of the Education Department. But true as this may be, no Africans have had a say as to what kind of curriculum ought to be followed in their schools. All the power is in the hands of the Europeans—that is, the British—who decide and force action in African education to keep their children in their segregated schools. By so ensuring their own children's education they tend to give less attention to African needs.

Who then are the people in Kenya upon whom the country may call to improve school curriculum? Four groups have been identified as potential participants in curriculum planning: statewide leadership groups; local membership groups; classroom teachers; and the general public.

The statewide leadership group in Kenya would mean the predominantly-European civil servants in African education. One or two Africans may be incorporated in the group but theirs would be only token involvement; their opinions will not count. The European authorities will make all policy decisions—since they will be in the majority they will use the democratic system of carrying out decisions by simple majority vote.

Africans will form the majority in the local leadership groups, but their decisions will be handicapped in two ways. The highest local official in the group will always be white and he holds the right of veto. And all recommendations passed by Africans at this level must go through governmental channels where the persons in authority are white and have veto power.

The classroom teachers involved in curriculum planning would be both whites and blacks working in African schools. Intergroup relations here, however, will be almost identical to those in the statewide leadership group.

The last group, the general public, is the only group which should receive greater attention in any effective development. Yet, sadly, they are regarded as either fanatical or ignorant. This is the only group which is totally composed of Africans and would speak for Africa's future. But all their efforts have been turned down as agitative or else impracticable.

Suppose that these four groups, who theoretically could be involved in curriculum planning, tried to work together. Suppose that all agree that the present curriculum is inadequate and incomplete. How would these groups act together? The individuals will all have a common goal to work for—a better curriculum for Kenya's schools. The people will not, however, all have the same feeling about reaching that goal. The Europeans will fear that the changes the Africans will demand may undermine their ruling authority. No matter how sincere the Europeans may feel, there is bound to be an element of fear of reprisal for their past deeds and great difficulty in accepting the fact that the age of colonial servitude and racial domination are over. In brief, ability must now replace racial bias in all forms of employment and activities. And this leaves us with the question which is bound to underly all approaches and decisions: is the European ready to serve under the African in Kenya?

When the groups come together their first reaction is bound to be racial antagonism. The two races with a common aim will have to find a common approach. They must find a common basis from which to start tackling the problem. At the outset, principles and philosophies involved in the process will be polaric in opposition. Superficially the two races will look at each other as equals, but there will be a strong underlying feeling of resentment. The two races will take the position which Elliot Mishler describes as that in which "one is oriented towards satisfaction and security in *internal* goals and is *cynical* about other persons. The second is oriented towards satisfaction and security in *external* goals and is rebellious against authority and social rules." ●

After studying in Britain on a government scholarship, Mr. Othieno returned to Kenya and went into teacher training. He made two research trips through Europe and is now at Columbia University completing work on his doctorate.

A PRIMER ON ACOUSTICS

by Donald D. Burk

Acoustics is a highly technical field that even all architects and engineers aren't necessarily privy to. Much less the educator, though he knows that the degree of noise level in his classrooms can make the difference between a good school building and an unsatisfactory one. What every educator *should* know are some of the basic acoustical laws and the recommended methods of sound control so that he need not depend wholly on sales engineers who have sound-insulating materials to sell.

First of all, the educator should have a clear idea of how sound is transmitted through a building. There are four principal means of sound transmission: *openings* such as windows, cracks around doors, ventilating ducts —wherever air flows; *refraction* or transmission through partitions—much like the refraction or transmission of light from air to water; *conduction* or transmission of sound through solids—impact sounds like foot-falls, hammering on walls, or furniture moved across bare floors which are conducted through the dense and rigid structural members of a building; and *diaphragm action* as when walls communicate sound from one side of a partition to the other.

Noise is best defined as unwanted sound. Noise may be musical in character—an automobile horn or a neighbor practicing his trombone at midnight—but more often it has an irregular, non-musical, and distinctly disagreeable quality. Such noise seldom has a predominant frequency that can be distinguished by ear or detected by instrument; instead it is spread over a wide frequency range.

To insulate against such noise it is necessary to know both the amount and character of noise involved and the amount of noise that can be tolerated. As a general rule, the difference between the existing noise and the amount that can be tolerated is the amount of sound insulation

that should be provided to keep the noise level down.

Many acoustical problems are avoided in today's educational buildings by their design itself. The shift to single-story construction has eliminated the impact sounds of foot-falls overhead and on stairs. Use of solid doors, masonry partitions, and heavy glass has contributed to better acoustics. Shorter halls, irregularly-shaped rooms, lower or vaulted ceilings, and a variety of textures tend to shorten reverberation time. Carpets, draperies, tackboards, open shelves, soft tile floors, and upholstery fabrics also have a quieting effect on rooms.

Yet, in spite of these advantages, many new buildings still produce a poor acoustical environment. Why?

In public buildings a noise level of about 15 to 25 db. (decibels) is comfortable enough because internal noises of that degree are nearly always present. If we were planning to insulate adjacent offices in a school building, we would find that the normal, expected level of sound is about 60 to 65 db. To reduce this to the 15 to 25 db. considered comfortable for such an area, the noise-reduction factor between rooms should be about 45 to 50 db. However, no wall or ceiling insulation will be entirely effective unless windows are closed. With closed windows (and artificial ventilation) it is possible to use standard construction for the area and still have adequate sound insulation.

Sound travels easiest through an opening. Even a tiny crack can admit a great deal of noise. Two phenomena account for this: the sensation level of sound is proportional to the logarithm of its intensity; and when sound passes through a small opening it is diffracted to spread out in all directions almost as though the opening itself were the source of sound.

Suppose an opening ten inches wide transmitted sound to an adjacent room to a level of 50 db. If the size of the opening were reduced to one-tenth of an inch, the energy would reduce to 30 db. By reducing the initial opening a hundred-fold, the sound level is reduced by only 20 db. It is apparent, then, that a high degree of sound insulation requires complete closing of all cracks around doors, thresholds, and windows. Normally, standard double-strength window panes, firmly mounted, and standard solid doors have sufficient sound-insulating qualities to be effective.

Noise from ventilating equipment can be reduced sufficiently with the use of slow-speed, quietly-operating equipment, by treating walls and ceilings of equipment rooms with highly absorptive material, and by lining the ducts with absorptive material.

Building materials like concrete, hard plaster, and stone absorb only 1 or 2 percent of the sound which strikes their surfaces. Diverging waves of sound are reflected again and again from such surfaces, losing some energy at each reflection. Under more complicated conditions, when a room is bounded by walls of varying textures and contains furniture, an exact analytical solution of the acoustical problem is extremely difficult.

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ACOUSTICAL PROPERTIES OF INTERIOR PARTITIONS

TYPE OF PARTITION	TRANSMISSION LOSS IN DECIBELS
4-inch face brick	45 (very good)
4-inch cinder block with ¾-inch layer of plaster	43 (good)
4-inch concrete block	40 (good)
4-inch open web steel studs with ¾-inch metal lath and plaster	40 (good)
4-inch structural glass block	40 (good)
3-inch cinder block with ¾-inch layer of plaster	39 (good)
2-by-4-inch wood studs with metal lath and plaster	39 (good)
2-by-4 inch wood studs with ⅜-inch rock lath and ⅜-inch fir plywood	38 (good)
4-inch open web steel studs with ⅜-inch rock lath and ⅜-inch fir plywood	38 (good)
4-inch structural facing tile	35 (good)
Z-shaped steel studs with ½-inch rock lath	35 (good)
prefab., movable partitions with metal skin and mineral core	30 (poor)
suspended sliding-door partitions with wood surface and mineral core	28 (poor)
2-by-4-inch wood studs with ⅜-inch fir plywood	25 (very poor)
prefab., movable partitions holding metal or glass panels	25 (very poor)
suspended folding partitions made of plastic-coated glass fiber	20 (very poor)

From Schoolhouse (Simon and Schuster)

The acoustical behavior of a room directly affects the audibility and intelligibility of the sounds produced in it. For classrooms, auditoriums, theaters, and music studios, acoustical defects can be detrimental to their purposes. Designers of these areas should be able to predict their acoustical performance before they are built.

The reverberant reinforcement of sounds in a room can improve their intelligibility. Optimum reverberation time can be produced by adjusting the sound-absorption coefficients of walls, ceilings, and floors. In larger rooms, especially those designed for listening, absorbent material should be applied to these surfaces.

The difference between good or poor acoustics in a room can often be seen—or heard, rather—with the addition of draperies, pecky cypress paneling, upholstered chairs, or carpeting. At first these might be regarded as luxury items, but when their cost is weighed against the price of "acoustical treatment," they move into the column of necessary equipment. ●

Can educators resolve the dilemma of the one-class neighborhood?

TEACHING ONE HALF HOW THE OTHER

THE STEADY urbanization of our country is creating a subtle problem for educators: the problem of educating for democracy in a one-class neighborhood.

Our public schools have achieved their unique success because they have helped the great American dream come true. This dream is that each parent worthy of the name has wanted his child to have better opportunities than he had, and the public school system fulfilled it by providing the bootstraps by which millions of Americans have lifted themselves to better lives.

This has been public education's great contributions to democracy—political, social, and economic—because in the process of helping the children of the poor, the immigrants, and the lowly to raise their horizons, they have contributed immeasurably to the development of the strong middle class on which true democracy depends. At the same time, it has led the more privileged children to understand the lives, the hopes, and the dignity of those less fortunate.

But the success of this democratic teaching cannot be credited to educators so much as to the public school system itself. In a nation of small towns and rural communities, each with its one or two schools serving the children of the bank president, the dry-goods merchant, and the garage mechanic, educators would have had to be poor teachers indeed to *avoid* instilling social democracy—and consequent economic and political democracy. When a youthful cross section of the social strata went to the same schools, sat in the same classes, and played in the same games, democratic teaching was the natural result.

But the post-war population surge and shift are changing all this. A steadily growing proportion of the population now lives in densely populated metropolitan areas where people in similar economic and social circumstances logically cluster. Here we find an unhealthy preponderance of one-class schools—upper-class schools in restricted suburban communities, middle-class schools in middle-income housing developments, and lower-class schools in congested, decaying downtown areas.

No longer is democracy learned as a natural concomitant of attendance at a public school. Now the public school is in danger of unwittingly setting class against class. At the very least, it is in danger

of failing to provide the higher and brighter horizons which make presidents out of poor farm boys and captains of industry out of slum dwellers.

This is the dilemma and the challenge to educators.

The problem can be approached on a district-wide basis by redrawing district boundaries so that they enclose a more heterogeneous school community, or on a classroom basis by teaching democratic attitudes where they cannot develop naturally.

The district-wide solution is being tried in New York City with its "open enrollment" program which permits children in schools with a high concentration of Negro and Puerto Rican pupils to transfer to schools with a more varied ethnic composition. Negro parents in New Rochelle, N. Y., and Chicago are pressuring for similar action to break up ethnocentrism in their neighborhood schools.

The classroom solution, which we propose here, would have public educators make a conscious effort to teach democracy in all its political, social, and economic implications. And the place to start this kind of program is in the junior high school.

From what is known about the growth and development of children, it is easy to conclude that educators must put into practice the curriculum innovations which have been preached about junior high schools for several decades. Instead of using the junior high school as just an administrative device for dividing pupils into buildings, we should build a junior high school program that centers on the developing social interests of pupils at this age level. And we should put into effect the core approach that has been so much talked and written about and so little practiced.

In a junior high school whose educational program is designed to meet the need for teaching democracy in a one-class neighborhood, a portion of each day should be devoted to the study of current community social problems. In fact, the entire curriculum could be related to such study. The goal in studying social problems is to broaden the views of homogeneous groups of pupils. These pupils can now comprehend only their immediate environment, and that not well because they have no basis for comparison. Left unchecked, such myopia will result in snobbery for the better-off and cynicism and despair for the less-privileged.

Study of such community problems as sanitation, slum clearance, and juvenile delinquency—through interviews and inter-school visits—would enable those pupils not directly affected by them to realize that many patterns of community life exist. And it would enable those directly hit by these problems to gain a perspective, to know that there is a better life, and to see brighter horizons.

Initially, one is likely to think of using these techniques primarily with pupils from more fortunate school communities. Even so, there will be interaction which would increase the understanding of both groups. And if pupils from both types of schools studied the same community problem at the same time, one group could see the problem from the other's point of view and the perspective of both groups would be widened. Certainly it would be difficult for them *not* to absorb an understanding of social, economic, and political democracy. (In less fortunate communities, these techniques should be augmented by visits to museums and libraries and attendance at concerts and plays—those cultural privileges that the more-privileged enjoy.)

What about subject matter teaching under this core approach? We don't suggest that standard techniques for subject teaching should not occupy their rightful place in the curriculum. Rather, this instruction for democracy would make use of all of the subject areas in the curriculum: *reading* for studying community problems; *history* for understanding the problem being studied; *English* for reporting out the problem; *mathematics* for handling the gathered data; and *geography* for locating problem areas. These are only the obvious examples.

This solution to the problem of teaching democracy in a one-class neighborhood has focussed on the junior high school, but the elementary and senior high school can also participate. However, the elementary pupil, by virtue of his stage of growth and development, is most interested in the community close to his school. And the senior high youngster, soon to enter the adult world, is more interested in national and international problems and in the beginning of specialization for his life's work. At these two levels teaching should, in the case of elementary pupils, awaken a social and economic consciousness and, in senior high students, instill an understanding of how a democracy functions.

To put such a plan into effect will not only give the junior high its rightful place in public school organization —now seldom attained—but, more importantly, it will help educators solve the dilemma of teaching true democracy in a homogeneous school community. ●

Dr. Eberle is provost of the University of Chattanooga in Tennessee; Dr. Utley is assistant professor of education there.

HALF LIVES

by August Eberle and Ishmael Utley

MAINTENANCE

Finishing Materials: Part I

WHILE THE RANGE of building materials proliferates, the criteria for choosing among them remain pretty much static. They should be selected on the basis of their performance, cost, maintenance, and appearance.

But in evaluating a product, it is common to find that it rates high under one criterion but low under another. It may be inexpensive to buy but difficult to maintain. It may perform well but be aesthetically displeasing. Selection, then, is largely a matter of compromise based on economic, technical, and human factors.

Finishing materials present perhaps the widest variety of selection problems. Here we will discuss some of the points to consider in the selection of windows, doors, and hardware.

Window frames. Aluminum continues to gain in popularity as a window frame material. Its main advantage is that it doesn't require painting. However, in industrial, urban, or seaside areas, aluminum frames should be anodized, which can add from 10 to 20 percent to the cost of aluminum sashing. A disadvantage here is that anodized aluminum tends to streak and fade. Heavy sections are always preferable to lighter ones; the latter wrack easily and are often built with cheap hardware.

Steel is still the most widely used material for school window frames. It costs less than aluminum, is easily painted, and is exceptionally durable. Well-built, medium-weight steel windows pay for themselves quickly through savings in maintenance and prevention of heat loss. But inferior steel sash are prone to the same wracking and hardware problems as aluminum. And though steel frames take paint easily, they need it regularly.

Wooden window frames are still favored by some planners because they look good and are substantially less expensive than steel or aluminum. It is difficult, however, to get properly aged wood today, so shrinking, warping, and sap seepage are its major maintenance problems. Other disadvantages: rapid deterioration of white pine under alternately wet and dry weather, and the need for regular repainting.

Windows. Fixed windows are considerably less expensive than operating sash. The lack of moving parts in fixed sash also cuts repair costs but makes cleaning more difficult. Increased use of air conditioning in schools will probably reduce the use of operable sash.

Though glass is one of the oldest and most useful building materials, where and how to use it depends upon environment, climate, and practical needs. Plate glass, though fairly expensive, is best for large window openings. (Small panes in a large window area are expensive and difficult to clean and repair.) Twin sheets of plate or regular glass are expensive but well worth the extra cost in severely cold climates where savings in fuel consumption can be substantial.

Wired glass is a special material designed to do a special job. It is expensive and generally presents a dismal appearance, but is easy to clean and can be used to prevent heat loss. And recent developments in the design of wire-stressed glass have greatly improved its looks. Heat and light resistant glass are also expensive and create glare in classrooms when sunlight hits them at certain angles.

Glass substitutes are now being used in some school systems. Plastic seems to be the best of these but it still doesn't represent a serious challenge to clear glass. Plastic has all the problems of glass (except breakage) and a few more besides, including discoloration and structural deterioration. It serves best as a glass substitute where it replaces a fixed partition and where visibility is not crucial. Though it doesn't break, plastic scratches so easily that many designers recommend it for skylights only.

Doors. Aluminum doors are fine for exterior use if their thickness is uniform. As with windows, the heavier, more costly materials are the best, and ultimately they are the least expensive. However, high winds, which produce pressure differences between the outside and the inside of a building, force even the heaviest aluminum doors to open too quickly. This can result in considerable damage to both the door and its frame. Installation of vestibule doors is one way to lick this problem. Steel doors are more durable but require regular painting.

Large glass doors with glass side panels are favored by some architects, but many feel this innovation has been pushed too far. Most glass doors, they say, are not sturdy enough to withstand the wear they get in a school and are, therefore, safety hazards. Such doors also need frequent cleaning.

Wooden doors are especially desirable for interior use where their relatively low cost, long life, ease of maintenance, and excellent appearance make them very practical. Hollow-core wooden doors have proved satisfactory, but solid-core doors are preferable because of their sound-

Contributors to this first of a two-part article on finishing materials are Stanton Leggett, Engelhardt, Engelhardt, and Leggett, Educational Consultants, New York; N. L. George, assistant superintendent of schools, Oklahoma City, Okla.; Wesley Wieting, Perkins and Will, Architects, Chicago; Basil Hick, associate director, Division of Buildings and Grounds, N. Y. State Education Dept.; Albert Hoover, Albert Hoover Associates, Architects, San Francisco; and Edgar Lundeen, Lundeen and Hilfinger, Architects, Bloomington, Ill.

proofing quality and maintenance advantages. (Hollow metal doors tend to buckle and dent too easily for school use.) Exterior wooden doors are both costly and difficult to maintain, especially those with laminated surfaces which check easily.

Hardware. Recent experience shows that plated hardware on steel is not standing up as long as it should. However, high costs preclude the use of non-ferrous metals in any low-budget building. Aluminum hinges have proved to be too soft for the heavy use they get in schools.

Proper use of hinges can reduce maintenance and repair costs considerably. Ideally, a door should be hung on three hinges of the right weight and material for the job. Extra duty hinges should be installed where extra heavy traffic is expected. Butt hinges (those that are mortised into both the door and its frame) cost more than regular hinges and require careful installation, but they are very secure and have a long life.

Unit locks are good for classrooms because of their simple operation and easy installation. Special unit locks with a thumb-turn on the inside knob are available for classrooms for safety exits. (If a person is accidently locked in the classroom, he merely has to twist the thumb-turn to get out. On the other hand, a mischievous child cannot lock anybody out because the thumb-turn cannot be used to lock the door.) Such locks require little maintenance.

Economy should never be a factor in choosing panic bars because lives depend on their working properly in an emergency. Exit doors with removable pipe mullions and iron channel door stops provide maximum safety and security. The mullion allows each door to operate separately. Since each door can be opened independently, deadlocking and vertical top and bottom bolts are not necessary. And the pipe mullion can be removed when a double door opening is needed. A good rule to follow: never skimp on hardware, no other material gets so much wear and tear, no other material varies so much in cost. ●

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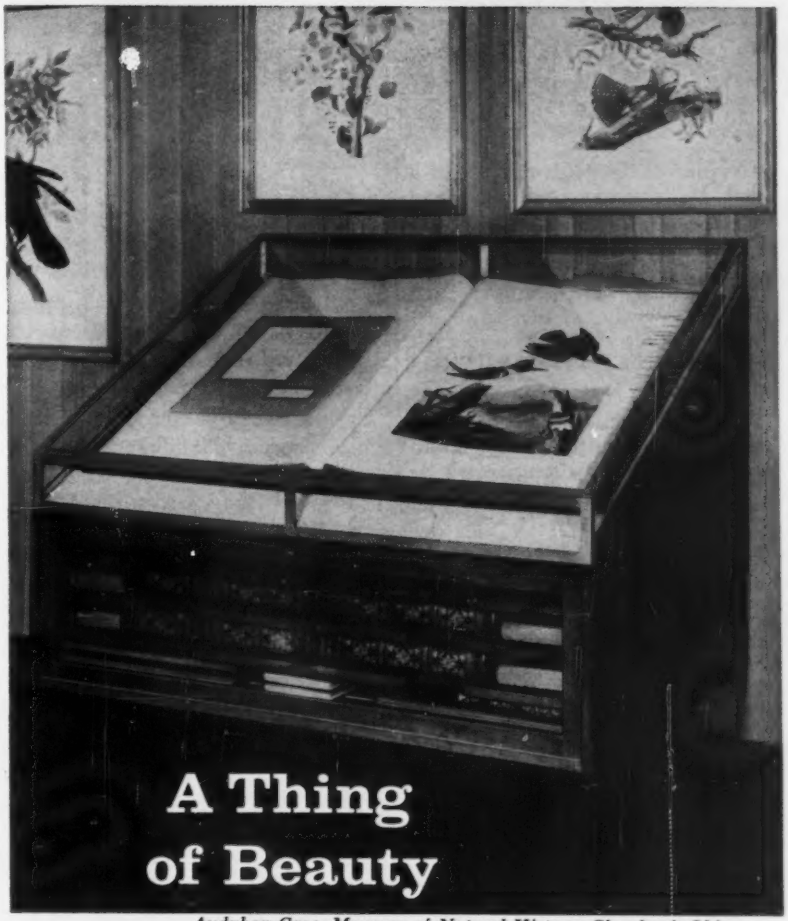

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The New Guidance Worker

ABOVE THE roar of the computer machine, the new guidance worker in the secondary schools may be heard talking about the application of data-processing techniques to counseling. He can be found in a curriculum planning committee discussing the design of course content. He may be seen "disciplining" a student who has been referred by a teacher.

These functions would not have been observed a few years back. Yet, when hundreds of guidance workers at last year's American Personnel and Guidance Association convention were asked if they were doing these things, the great majority said "yes."

This new guidance worker has emerged in response to new demands made on education to develop the manpower resources of the nation. These new demands require that counselors devise new methods in educational guidance.

First of all, most counselors distinguish between the educational and remedial functions of guidance work. They see their job as the first—helping students develop their talents and abilities—and leave the remedial or therapeutic function to the psychiatrist, psychologist, or social case worker. And unlike the remedial specialist, he sees his work as an integral part of, not an adjunct to, the overall school program. In other words, he is an educator and not a white-coat professional.

The counselor believes the unique function of guidance in an educational program to be the process of individualization (needed more than ever today to overcome the regimentation that too often goes along with bigness and complexity in a secondary school). He contributes to that process both in his work with staff members, parents, and community groups and in his sessions with individual students.

In his work with teachers, the new guidance worker goes over problems of student motivation, individualized instruction, and control of student behavior. He works with teacher-parent groups on finding better ways to reward the students' academic achievements. He meets with supervisors and administrators to plan units in mental health, social living, and college and vocational guidance. He works with curriculum committees on ways to identify intellectual and emotional characteristics of different ability groups among the student body and to plan more effective learning experiences for each group. He tries to involve the staff in studies of the social forces that bear on the learning environment—the personality types valued by students, social pressures on students that influence their attendance and scholarship, attitudes of majority groups toward minority groups, etc. In all of this, the new guidance worker is more interested in observing and influencing the natural operation of social forces within the school that affect learning than he is in designing and measuring a controlled learning experiment.

His work with the individual student is essentially that of helping him take full advantage of the educational opportunities the school provides for him. Here he is more of a consultant than a counselor with therapy in mind. He puts the most emphasis on helping students develop their strengths, but he keeps alert to students who manifest serious problems and refers them to remedial therapists.

He helps each student chart a course of study that is in line with his ability and aspirations. This requires that he be familiar both with the design and content of each course and with the characteristics of each stu-

By Kenneth Venn, supervisor of counseling for San Diego City (Cal.) Schools.

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Guidance (continued)

dent. This is perhaps the most decisive aspect of the counselor's job. A program can be disrupted if the right students are not in the right courses, and a student can be crippled if his true ability is not recognized and given a chance to develop. The counselor must also help students project their long-range educational goals, for modern technology will inevitably require that they take further trade, business, professional, or technological training.

The counselor also takes a new approach in vocational guidance. No longer is the student asked to pinpoint an occupational interest. Instead, he is encouraged to explore the diversity of his interests and the adaptability of his talents. The counselor acquaints him with economic trends and occupational opportunities so that he can be better fitted for life-long education and thereby adapt himself to changing employment conditions.

Finally, the modern guidance worker tries to help the individual student predict the consequences of his behavior and be responsible for his actions. In cases of student misconduct his emphasis is not punitive but constructive. This means that he holds the student responsible for his conduct in such a way that he can accept, understand, and benefit from disciplinary action. (The modern administrator, too, has found that the counselor who knows the student best and is able to devote more time to each disciplinary referral is in the best position to help in cases of student misconduct.)

We can hope that the practices of the new guidance worker are imaginative and comprehensive enough to meet the new responsibilities placed on educational guidance. At any rate, he appears to be serious and intent about his work. And no wonder! Public mandate and national legislation hold him responsible for helping teachers to develop the nation's manpower resources. He knows that national security and the country's future depend in large part upon his ability to guide the youth of our nation. ●

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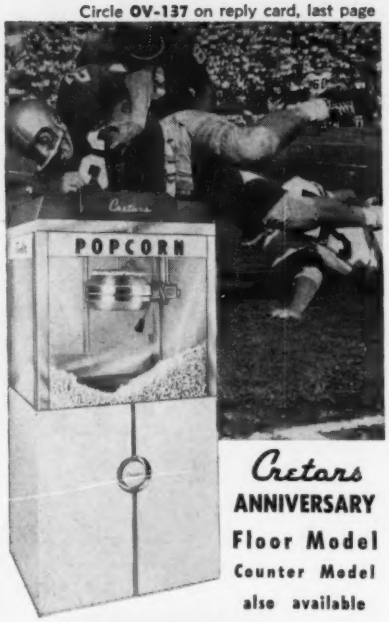

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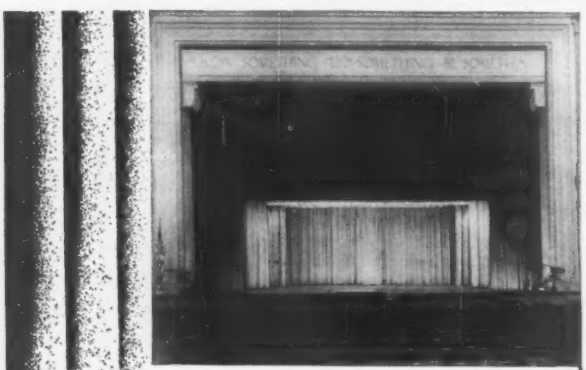

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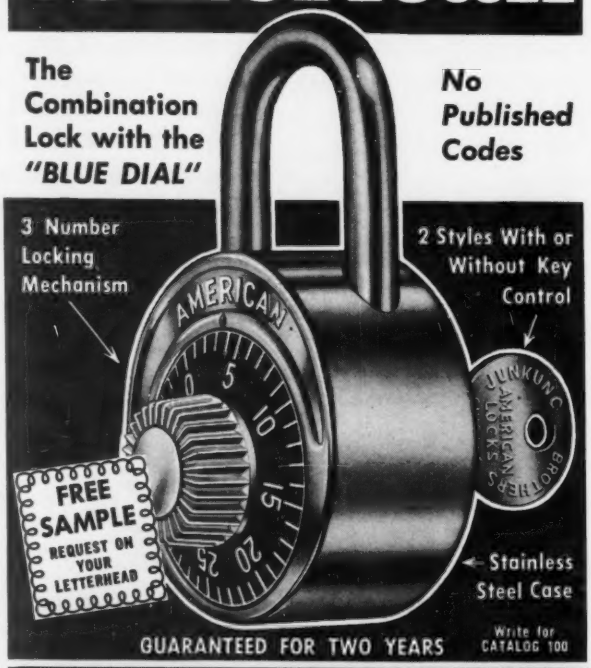
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Testing: Tool for Curriculum Development

THE GROWTH OF testing programs has stirred up a lot of discussion about the over-reliance on tests as a basis for student placement within a school or college [Aug OVERVIEW p31], but too little on the use of test results in curriculum development. Yet the possibility of improving the curriculum is one of the strongest justifications for a school testing program.

Educators now have the techniques by which they can measure, quite accurately, the intellectual ability and subject matter achievement of *groups* of children. Taken one step further, a testing program can help in the analysis of "testable" areas of the curriculum to which either the child, the teacher, or the school should give particular attention.

We have begun a testing program in Urbana which is helping us in curriculum planning as well as in pupil placement. Each fall we administer a test of mental maturity in grades one through seven and an achievement battery in grades two through seven. We feel for now that this amount of testing is necessary to develop local norms; in the future we will not administer the test of mental maturity at each grade level. This is how our testing program is administered:

Pre-testing discussions. At a pre-testing session conducted in each elementary building the teachers meet to discuss testing materials and to review the school psychologist's instructions. While we are aware of the advantage of using specialists or substitute teachers for test administration, we feel there is greater advantage in using classroom teachers in testing.

Test administration. Test materials are distributed through the central office. Both achievement and mental maturity tests are administered within a two-week span, spread out into five one-hour sessions. Each principal supervises test administration with assistance of the school psychologist as necessary. Most of the tests are machine-scored in the central office; others are hand-scored by the teachers.

Test recording. Machine-scored tests are returned to the teachers. With the tests we return a form for recording the scores which have been converted to grade placements in the central office. This form is prepared for direct transmittal to a key-punch operation in which the student's name, test scores, and age are recorded, and the completed forms are returned to the central office. From the punched cards, class lists are prepared for the individual teacher, for the building by grade, and for the entire district by grade level.

Test analysis. We produce local norms for all major parts of the mental maturity and achievement tests by grade level, but not by building. We do *not* convert to local norms in the sense that we eliminate references to national norms. We compute distributions of grade placement scores based upon our own pupil population. At this point we use a locally-prepared profile of test scores to be used *in lieu of* the test publisher profile. These profiles, prepared by the teacher for each pupil in her class, compare a pupil's scores with both local and national norms.

But more important in terms of curriculum, we count the number of children correctly answering each test item. Since this is our first try, we have limited this to one test—arithmetic—though item counts of other tests are prepared as individual

By Gary Blade, director of special services of Urbana (Ill.) Public Schools, and James Steffensen, specialist in the local school administration section of the U. S. Office of Education and formerly curriculum coordinator of Urbana Schools.

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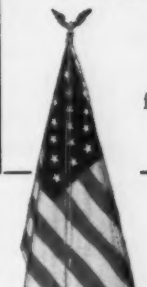

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Testing (continued)

teachers request them. This tells the teacher the number of correct responses to each test item made by the students she will have during the course of the year. We also make an item count of the arithmetic test items by grade level throughout the district for study by each building's staff. Finally, we categorize item responses by ability level.

Test usage. From system norms, prepared on the basis of our own elementary population, the teacher examines the nature of each class as its work reflects her own expectations for it. From the item count sheets on each class, she notes those particular areas in which the class, as a *group,* appears to deviate from anticipated results. And from the individual profile of test scores, she can identify weaknesses or strengths which deviate markedly from local norms. System-wide, we are in a better position to concentrate on those areas which the test data indicate need attention. For example, we used test results last year to show the need for a remedial reading teacher.

There are two questions which might be raised about our program:

Won't this create a problem of "teaching for the test"? We don't believe it will. The material is given to the teacher for her use through the year with a class which she has just acquired. But with certain limitations we would hope that there *would* be "teaching for the test." Suppose, for example, that our results show that one class has difficulty in working with fractions in which the numerator is greater than 1; in this instance, the teacher should deal less with fractions like $\frac{1}{3}$ and spend more time on fractions like $\frac{2}{3}$, $\frac{3}{4}$, etc.

Does your testing program determine the curriculum or does your curriculum determine your testing program? The choice of tests must depend upon the objectives of each subject area. This requires that objectives of each subject area at each grade level be spelled out. The testing program will be valuable to curriculum development only to the extent that the objectives of the curriculum are tested. •

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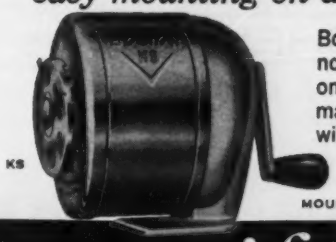

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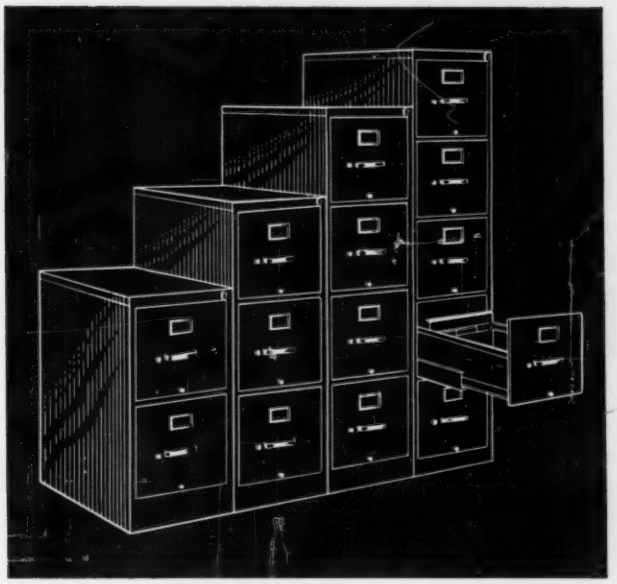

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EXECUTIVE'S BOOKSHELF

SCHOOLS IN THE U.S.A.; Building Bulletin #18

British Information Services, 45 Rockefeller Plaza, New York City. 364 pp. $2.80.

This is an overview, and a detailed one, of school building in the United States as seen by two perceptive British architects on a year-long tour. Of course it doesn't cover every type and problem, but it is amazingly comprehensive. There are 138 full-page "diagrams" (plans) of school buildings and features, sixteen half-page photographs, and sixty-seven diagrams of equipment that struck them as notable.

During 1958–59 they visited over 200 schools and colleges in forty states and talked with architects, educators, students, and custodians. Their visit was sponsored by the Commonwealth Fund and their report, published by the Ministry of Education, is addressed to the Ministry and all Britons interested in school and college plant. But it is such a fine combination of fact and interpretation that anyone interested in school and college building problems in this country will study it with profit.

The chapter on Lighting is especially good. "There is a real danger that, because daylight has some shortcomings and electric light has some advantages, the public will suffer the disadvantages of electric light, but be denied the advantages of daylight."

THE AMERICAN HIGH SCHOOL AND THE TALENTED STUDENT

By Frank O. Copley. Ann Arbor, Mich: The University of Michigan Press. 92 pp. $3.95.

One doesn't have to agree with all Professor Copley's assumptions to enjoy his analysis of the several ways high schools try to provide challenge for the academically-talented student. In his capacity as consultant to high schools in the honors program, he has a background of observation and experience which makes what he has to say worth hearing.

His passing comments on how well our schools have done by their average students and how "spectacularly well" by the below-average and handicapped are forgiven because his whole life's focus has been on the academically oriented. Within that field he makes good sense, and his special vantage adds value.

THE INSTRUCTOR AND HIS JOB

By Homer C. Rose. Chicago: American Technical Society, 848 E. 58th St. 280 pp. $5.50.

A down-to-earth compendium of "techniques anyone can use in teaching," designed to help training directors develop effective instructors, this is notable for its good sense and straightforward language. Basically a textbook for prospective instructors in business and industry, it should have far wider use.

We've tended to play down technique in teaching. Some teacher-preparation programs, in their flight from the Normal School image, have abandoned the field, except as an in-

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cidental learning in the practice-teaching assignment. Colleges and secondary schools are loaded with people who have had to work out some kind of technique on the job. But training directors have had to be concerned because so many of the people they can recruit not only haven't been trained to teach but haven't lately been in the college-university atmosphere which seems to disdain technique.

Everyone who teaches teachers and who believes that trained people are more competent in their work should set Mr. Rose's simple analyses beside other, more sophisticated how-to-teach material. It comes off well in the comparison.

THE NATURE OF THE GENIUS

By Andrew Gemant. Springfield, Ill.: Charles C Thomas. 206 pp. $6.50.

Those who qualify as geniuses to Dr. Gemant are few indeed. He never quite makes clear just what are his criteria, but it is the exclusions that reveal his tendency to require that they be dead, patently aberrant from their generation, male, and producers of words not deeds.

Having narrowed his field he does try hard to find those distinguishing features of character, personality, ways of thinking and feeling, and works which will enable one to recognize genius in others.

If your hunches and values coincide with Dr. Gemant's you may be helped to decide that George Bernard Shaw was a genius while Sibelius doesn't qualify.

Read this for personal pleasure, but don't expect help in defining "giftedness."

THE ART OF DECISION MAKING

By Joseph D. Cooper, New York: Doubleday & Company, Inc. 394 pp. $4.95.

Despite its sub-title, "a practical guide for executives," this is more than a set of rules. It is also less than a complete theoretical analysis. The writing is breezy, reflecting the aim of providing helpful suggestions for people who have to make decisions.

This is not a "must" book, nor a text, but most of us will find some profit in it.

The World of Teaching Machines

By Charles I. Foltz. Washington, D. C.: Electronic Teaching Laboratories, 5034 Wisconsin Ave., N.W. 116 pp. $5.95.

Planned Patriotism

By Everett E. Cooke. PBSW Supply and Equipment Co., P. O. Box 551, Phoenix 1, Arizona. 168 pp.

Elementary Teachers Guide to Free Curriculum Materials

Edited by Patricia H. Suttles and John Guy Fowlkes. Educators Progress Service, Box 497, Randolph, Wis.

Educators Guide to Free Filmstrips

Compiled and Edited by Mary Foley Horkheimer and John W. Diffor. Educators Progress Service, Box 497, Randolph, Wis.

Research Design and Analysis

Edited by Raymond O. Collier, Jr. and Stanley M. Elam. Phi Delta Kappa, Inc. Eighth and Union, Bloomington, Ind. 208 pp. $3.50. ●

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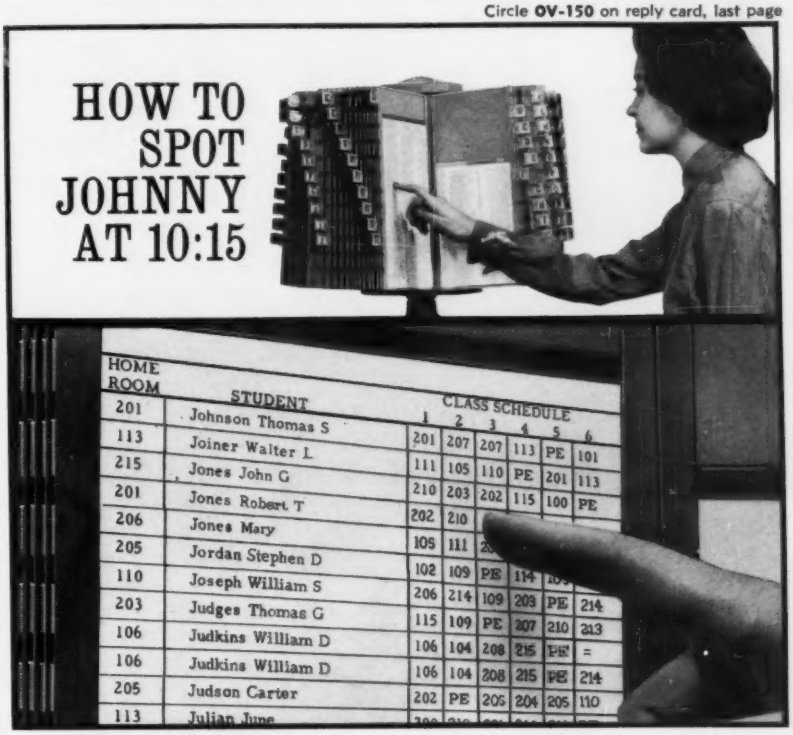

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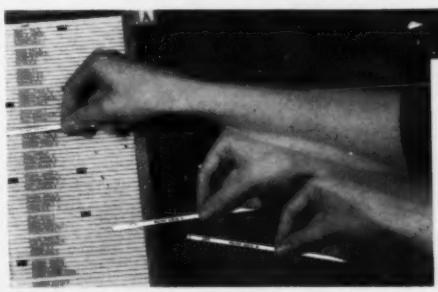

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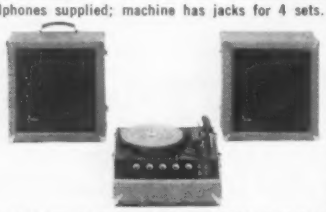

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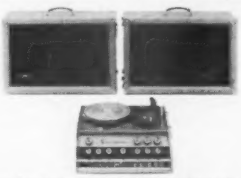

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PLANT NEWS

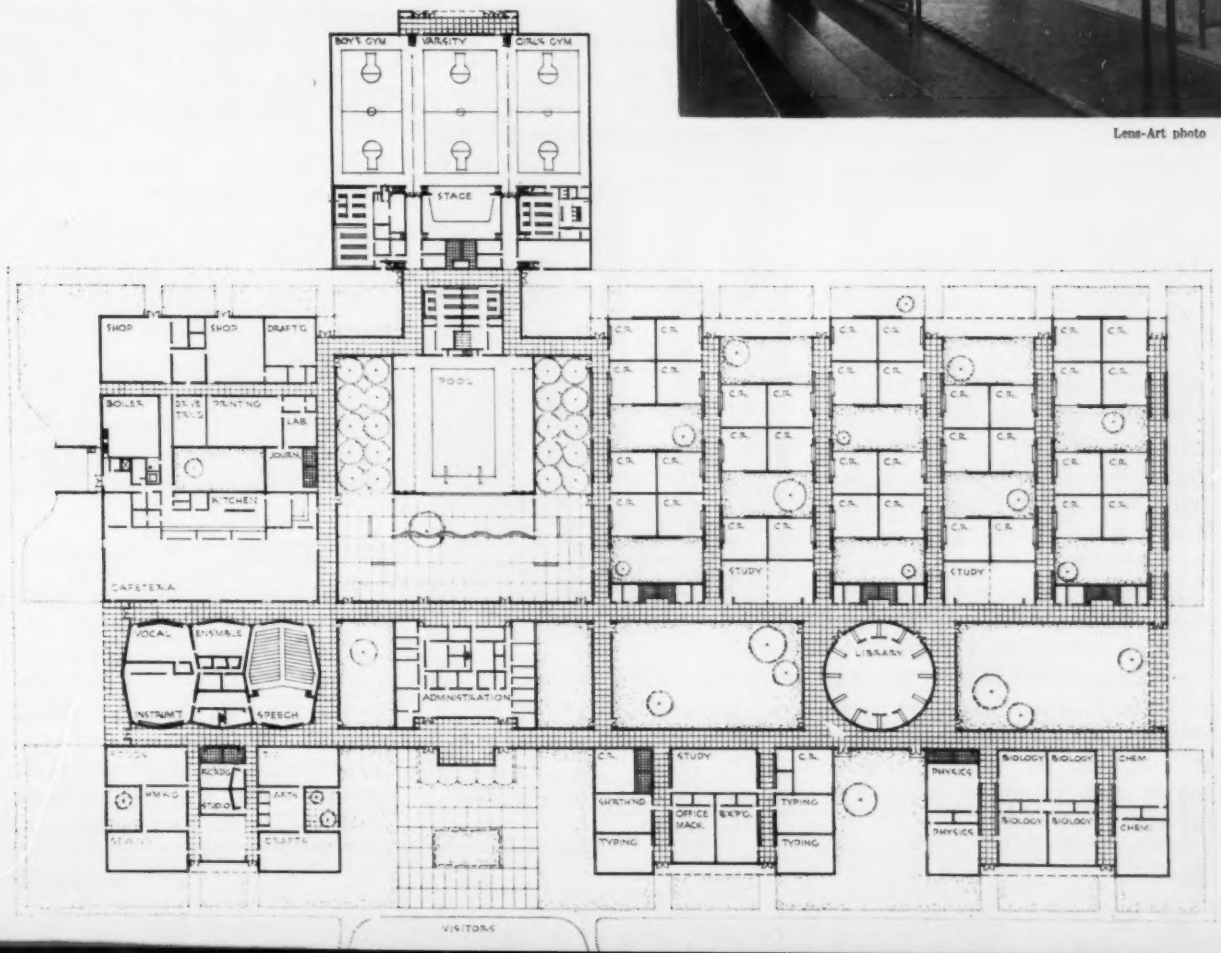
Kamehameha's Latest

The Kamehameha Schools in Honolulu, founded in 1887, now enroll over 1,400 Hawaiians in three divisions: boys' military boarding and day school; girls' boarding and day school; and coeducational elementary day school. Latest addition to the campus is $1 million, three-story Paki Hall for boys' high school classes, by Honolulu architect Theodore A. Vierra. The building's structural design reflects that of the original campus buildings. Mechanical facilities include a freight and passenger elevator. Two of the twenty-eight classrooms can be combined for team teaching sessions.

Courts for Separation

Instructional and activity areas of Wylie E. Groves High School, Birmingham, Mich., are separated by landscaped inner and outer courts (see site plan). The $3.8 million school was designed by Linn Smith Associates, Inc., for 1,500 pupils, with planned expansion for an additional 500. The 50-acre site is completely developed with athletic fields and tennis courts. Thin shell concrete vaults roof the library and administration units; other areas have a steel roof deck on steel joints, with insulation and built-up roofing. Swimming pool area (photo right) has a precast concrete roof deck. Exterior walls are face brick with aluminum sash. ●

Lens-Art photo



EDUCATION ROUNDUP

Public • Private • Military • Business • Labor • International

State Trends

New York will convert its eleven state teachers colleges into regular liberal arts institutions over the next five years. The State Board of Regents, which approved the plan, emphasized that the colleges will continue to stress education courses. Under the new program, students intending to become teachers will take certain courses required for certification. The others can take whatever courses they want.

In Virginia, the State Council of Higher Education has come up with a plan to increase the enrollment in the state's nineteen colleges from 26,378 now to 48,500 by 1970. The Council recommended a substantial expansion of community colleges to handle the increased enrollment. Generally, according to William H. McFarlane, Council executive director, the demands of this decade will require bringing undergraduate education to the students and sending the students to graduate education.

The University of Illinois plans a new campus in Chicago that will accommodate 20,000 students by 1969. The first phase is to be completed by the fall of 1964 for an enrollment of 9,000, with most advanced undergraduate work restricted to the College of Liberal Arts and Sciences and the College of Commerce and Business.

The Children's Hour

For the first time in the history of broadcasting, radio and television station owners will be asked by the Federal Communications Commission about their efforts to provide programs for children. Fcc Chairman Newton Minow announced the question will be included in the annual reports submitted by stations for renewal of their licenses.

Urging the broadcasters to direct their attention, creative talents, and resources to "a national need which demands the best of all of us," Minow said their decisions "will affect more children's hours in America, for good or evil, than the teachers in our schools and many parents in our homes."

Who Cares?

"Education was done in" in the last session of Congress because nobody wanted to cooperate on a broad front, maintains HEW Secretary Abraham A. Ribicoff. He startled the annual meeting of the American Council on Education by telling the 1,000 university presidents and deans that "I *don't* think you really *care* about education. And I *don't* think you are going to solve the problems of education by going to meetings!"

Departing from his prepared speech, Ribicoff charged that when the proposals for federal aid to education needed support against strong opposition in the Eighty-Seventh Congress, "everybody looked out for his own interests, everybody wanted a piece of it." He accused the educators of looking for support for only their own programs and interests.

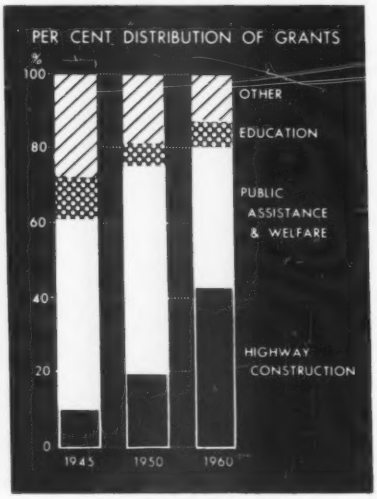
The speech was the second in a series of ten by Ribicoff scheduled before the end of the year in which he will launch a "hard sell" campaign across the country in favor of federal aid to education. Ribicoff will deliver similar speeches before the Chief State School Officers (Nov. 9—Baltimore), Carnegie Foundation for Advancement of Teaching (Nov. 14—New York City), and the American Vocational Association (Dec. 4—Kansas City).

"The people do not realize," says the HEW Secretary, "that the defeat of any proposal for a higher quality of education—be it in a town, a state, or a nation—threatens our strength as a nation."

He lashes out particularly against "mythical arguments," and adds, "The problems before us are the problems of the Sixties, but the dialogue was spoken in the rhetoric of the Twenties. The catch-phrases and slogans of another era were trumpeted across the land. . . . What I reject is the sloganeering aspect of states' rights—the false cry of alarm that is raised whenever the Federal Government and states join together to solve problems of national significance which the states alone cannot solve."

Snapshot of Aid

FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS



Courtesy National Industrial Conference Board

Cooperative federal-state and federal-local programs are heavy in highway field, show some gains in education. Public assistance, including aid to dependent children, being squeezed. Federal grants totalled $7 billion in 1960, are hitting new peak in 1961.

Professionals All

How much should a teacher earn? The Arlington (Va.) Education Association believes, as do most teachers, that they should receive salaries comparable with other "professional people." Arlington teachers are using an unusual method to get their point across to voters. They have asked the U. S. Census Bureau to conduct an

income survey of county residents who have had at least four years of college.

Richard G. Neal, AEA executive secretary, said that "if the Arlington community considers its teachers 'professional people,' it should pay them salaries that will permit them to live side by side with the parents whose children they teach."

The Census Bureau, using 1960 information, will tabulate the income of every fourth county resident who has a college degree and who works a minimum of forty weeks a year. The tabulations will then be grouped by age and compared with teacher salary scales.

Memo to R. Welch

The John Birch Society was told to keep "hands off" the public schools by the nation's rural school superintendents. While the Birchers were not mentioned specifically, it was widely recognized that a resolution passed unanimously at the annual convention of the Division of County and Intermediate Unit Superintendents was aimed primarily at the John Birch Society. In fact, at one point, President Cecil Hardesty referred to it as the "Anti-John Birch Resolution," which drew chuckles from the 300 members attending the national convention in Pittsburgh.

The resolution said, "A democratic society cannot afford poorly trained individuals who are not aware of the dangers from without and those from within our country which are striving to bring about its downfall. It is incumbent upon us to resist intimidation. . . ."

In other business, the rural superintendents decided they didn't exactly like the kind of financial aid they were getting from Washington. However, a reworded resolution called for a general aid bill to be passed by Congress and then the dropping of NDEA. The only other resolution to cause any stir was one suggesting that county, or intermediate, administrative units run publically-supported junior colleges and adult education programs. It was tabled mainly because it isn't applicable in some sections of the country.

Another resolution chided the NEA for downgrading the Rural Division staff. The resolution urged the "NEA immediately to restore the Rural Division staff to its former strength and to add additional qualified professional personnel at the earliest opportunity." The resolution reflected the rural superintendents' concern over the rise of industrial education and the deëmphasis of agricultural education.

Catholic School Needs

A record enrollment of 5,648,000 students in U.S. Catholic schools and colleges is reported by the National Catholic Welfare Conference for 1961. This is 178,000 more than last year. Of the 176,375 teachers, 120,283 are religious and the remainder are lay teachers.

The Rt. Rev. John J. Voight, secretary of education of the Archdiocese of New York, told the annual Boston Archdiocese Teachers' Insti-

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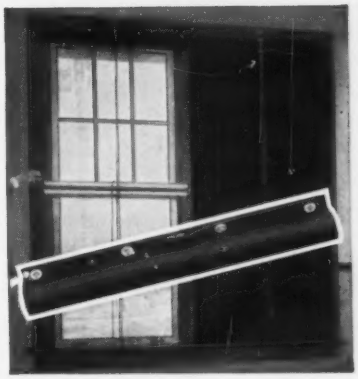

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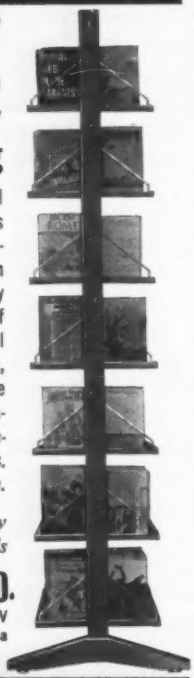

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—Karl A. Barleben
Contributing Editor
Film World

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Roundup (continued)

tute that more lay teachers should be added to elementary parochial school staffs and more lay personnel should be employed in the offices of the diocesan superintendent of schools.

Conceding that Catholic schools cannot now match public school benefits, Msgr. Voight said the only solution is to develop "on a diocesan level some plan for underwriting cost for such parishes unable, with their own resources, to provide an adequate and satisfactory school program." He predicted that "the time will come when the present autonomy of the parish school will be considerably lessened by greater centralization."

To improve the standards of parochial schools, Msgr. Voight said the superintendent's office will have to be considerably expanded: "Since it is becoming more difficult to obtain priests and religious teachers to assist in the work of the central office, consideration should be given to the employment of professionally trained lay personnel."

Other developments in Catholic education:

Providence, R. I.: The study of French was begun in the first grades of all Providence diocesan schools this fall.

Ende, Indonesia: The Indonesian government will distribute free Catholic Bibles to Catholic families in the country.

Guinea: French-born Archbishop Gerard de Milleville, head of the Catholic Church in this West African country, was expelled by the government for challenging the authority of the state to nationalize all schools.

Not Tax Deductible

Funds paid to teachers under Title 7 of the NDEA cannot be excluded from their gross income, according to the Internal Revenue Bureau. The issue arose when ten ninth-grade teachers were paid while attending a six-week university institute on new methods of teaching algebra.

The IRS ruled that "although it is possible that some of the individuals . . . increased their professional

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abilities and skills, there is nothing to suggest that any such benefit was anything more than an incidental result of association with the project. There is no indication that the education or training of project personnel was the primary or even an important aim of the college when it made the payments."

The ruling also applied to staff members from the college.

Collective Bargaining

New York City's new board of education has requested the City Department of Labor to hold an election "as promptly as possible" to determine a collective bargaining agent for the city's 40,000 teachers. The board said that election details—the determination of the bargaining unit or units, which organizations should be on the ballot, and who should be eligible to vote—should be worked out between the Labor Department and the organizations.

In June, the city's teachers in a referendum supported collective bargaining by a large margin. Since then, the Secondary School Teachers Association, the Elementary School Teachers Association, and seven other groups said they would form a coalition to seek designation as the bargaining agent. They said the New York City Council of the NEA and several borough teacher organizations supported the new bargaining coalition, called The Teachers Bargaining Association of New York City.

The question of collective bargaining was one of the issues that led to the one-day work stoppage last spring by the United Federation of Teachers (AFL-CIO). A UFT statement said that "most of the organizations associated with the new teachers' coalition "opposed a 'yes' vote in last June's referendum. The teachers rejected their advice then, and we doubt that they will reverse themselves by electing these same organizations as bargaining agent."

Some observers believe that without the formation of the new coalition with NEA support, the UFT alone might have been strong enough to carry New York City teachers in an election to determine a bargaining agent. Previous to forming the coalition, most of the other teacher organizations in New York City held out hope that the teachers would favor the designation of various bargaining agents at different levels instead of one overall agent. But when the teachers voted 27,367 to 9,003 in favor of collective bargaining, the other organizations realized that without a united opposition to the UFT, they would probably be left out in the cold when the teachers vote to designate a specific bargaining agent.

Vaccinate Now

An upswing in the influenza cycle is likely to hit the U. S. this fall and winter, reports Surgeon General Luther L. Terry. He recommended immediate vaccinations for people in the three groups which accounted for most of the 86,000 flu-triggered deaths between September, 1957 and

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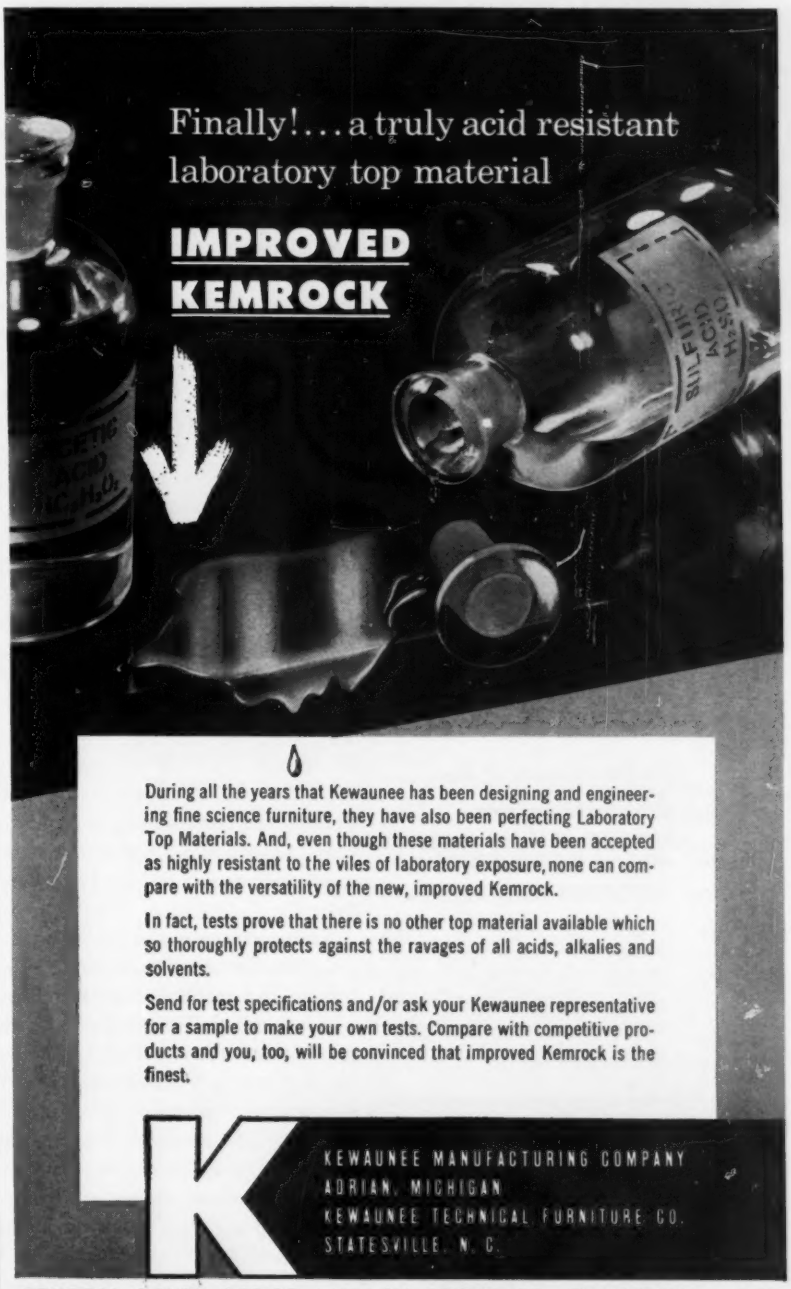
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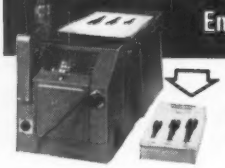

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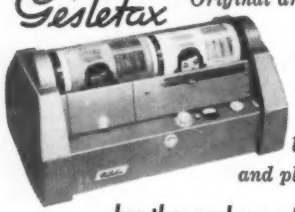

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Roundup (continued)

March, 1960: people with heart disease, pulmonary disease, diabetes, and other chronic illnesses; people over 65; and pregnant women.

"We are probably due for some Asian flu outbreaks, since they come in two- to three-year cycles, and we are overdue for Type B flu outbreaks which come in four- to six-year cycles," Dr. Terry said. "Asian flu has been dormant here since March, 1960, and it has been more than six years since we had much Type B flu in this country."

Hot School

Three years ago the Great Neck, L. I., school board spent $9,205,000 for its South Junior and Senior High Schools. Now the board may have to spend an additional $1,720,000 to air condition them. Complaints from teachers and pupils of unbearable heat have been received by school officials since the brick - and - glass buildings were opened. Temperatures of nearly 100 degrees have been reported. Many tests and experiments with tinted glass, additional fans at faster speeds, more blinds, and other changes have been made, but these offered no substantial improvement. Consulting engineers, after a $16,000 survey, concluded that the best solution was to air condition the buildings.

Miracle Workers

While one division of the Ford Foundation was warning colleges and universities not to count on miracles, another division was busy performing one.

The warning came in a booklet published by the Foundation's Fund for the Advancement of Education which predicts that in the next ten years, some private colleges in the U. S. "may go down the road to financial chaos unless they can be alerted." The booklet's author, Sidney G. Tickton, says that some may go out of business altogether.

The miracle came from the Foundation itself which has set aside $100 million for the unrestricted support

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of independent liberal arts colleges. Initial grants to eight institutions total $13.6 million.

The program was described as an effort "to build on excellence and realistic aspirations in a group of institutions with differing backgrounds, geographic location, and plans for the future." By leaving $86.4 million open for subsequent distribution, the trustees hope to head off possible complaints about the selection of the first eight colleges.

Other colleges hoping to receive some of the money might get an idea of what the Foundation expects of a qualifying institution by reading the Fund's booklet, *Needed: A Ten Year College Budget*. Author Tickton suggests that one way to prevent colleges from collapsing is for them "to focus attention on the budget outlook up to ten years ahead. Ten years is long enough to dramatize the consequences of the continued following of present educational plans and practices. . . . It's risky to run a big business—and colleges and universities are big business these days—on the assumption that 'God will provide.' Miracles do happen but there haven't been many recently. And they can't always be counted on to happen in the year that the money is needed."

Planning Aid

The U.S. Housing and Home Finance Agency lent fifty-two communities a total of $1,288,470 in the first nine months of 1961 to help them put across bond issues for new schools. The communities used the money to finance studies and prepare drawings, plans, and specifications of new projects to submit to the voters. New school construction planned in the fifty-two communities will total more than $60 million.

These interest-free loans are not restricted to future school projects, but are available to any non-federal public body. Besides loans for new school construction, the HHFA advanced funds for 300 other projects, mostly for water and sewerage facilities, during the same nine-month period. All loans must be repaid at start of construction. ●

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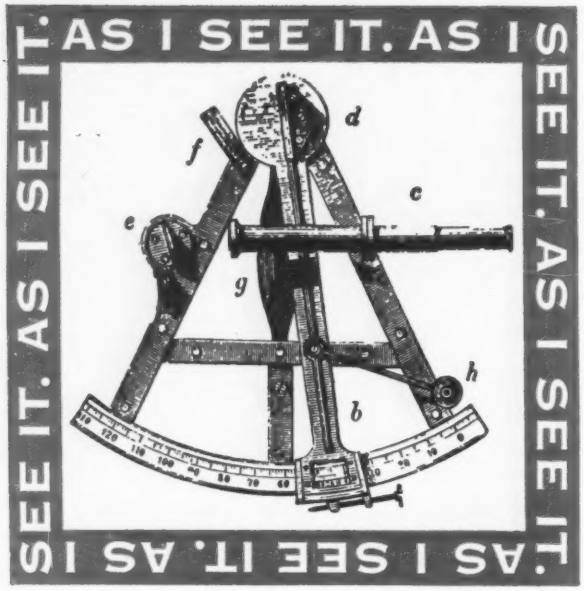

Adult Education

Walter D. Cocking comments on the current scene

THE GROWTH of adult education has been one of the most impressive educational phenomena of the past thirty years. Today, adult education (or "continuing education" as it is more and more coming to be called) is growing more rapidly than any other phase of American education.

Many agencies sponsor adult education programs: public schools and colleges, private schools and colleges, churches, libraries, welfare associations, and many others. Government groups at all levels are particularly active, including the armed services. But the greatest use of adult programs in the last fifteen years has come in business and industry. Scores of programs and thousands of adults are involved in these programs. There seems to be no end to the adults' desire to learn.

No one knows their exact number; estimates for 1960 ran higher than 40 million. The large number of sponsoring organizations and the lack of any coordinating machinery make it difficult to ascertain the exact number of enrollments for any given year. But totals are unimportant. One can still conclude that adult education today has grown tremendously and that adult Americans have a zeal to continue learning that is unparalleled.

As I see it, certain observations regarding the great development of adult education should be set forth for consideration.

Of greater importance than enrollment growth are the changes in character and composition of the adult education programs. Thirty years ago, most adult programs dealt with agricultural extension and so-called "Americanization" to help newly-nationalized citizens. There was a brief period of adult classes in the social skills—dancing and card-playing. However, since 1950 in particular, adult programs have become more substantive and realistic. There has been a clear demand for programs in international relations, science, economics, literature, art, public administration, housing, community improvement, and similar topics. The military, business, and industry have organized scores of programs for their personnel to become more efficient.

Schools and colleges have cooperated in many of these programs and, in addition, have sharply stepped up the quality of local and area programs. Probably there has been a greater improvement in adult programs than in any other phase of our educational system, at least during the past ten years.

Adult education may have been fortunate in that it has had only limited structure and organization. It has not had to worry about grades or Carnegie units. Each unit sponsoring an adult program has been fairly free to set its own objectives, content, teachers, and provide the opportunity for a given program to achieve a given goal. We can hope that these types of freedom and initiative will be preserved for the indefinite future.

Adult education has been housed in many kinds of facilities. Schools and colleges have cooperated generously with other agencies in permitting the use of their facilities. Industry and government have frequently adapted their own facilities for various kinds of adult programs. Undoubtedly in the years ahead we shall see a considerable increase in provisions specifically designed for adult education.

The financing of adult education, both public and private, follows many patterns. Also, it is not known today what a good and comprehensive program *should* cost. In many cases adult education has been provided on a financial shoestring. We need careful studies of cost and various proposals for long-term financing.

One thing is clear. Today's adults in overwhelming numbers desire to continue to learn. They use many means to fulfill this desire. It may well be that well-planned adult education programs offer one of the best means for America's continuing progress. We have made a good beginning. ●

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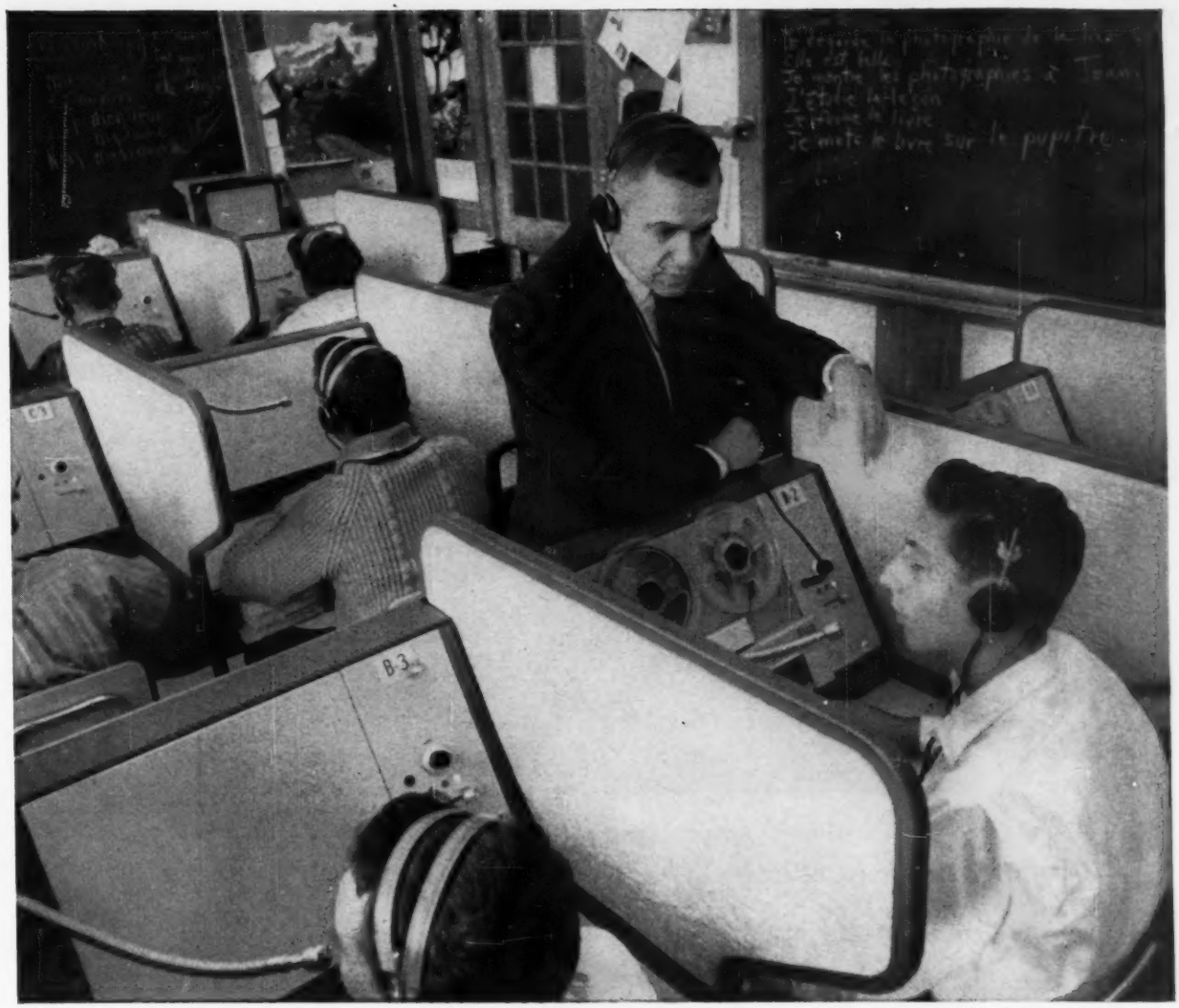

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INSULATED FOOD CARRIER TRANSPORTS MEALS FROM CENTRAL KITCHEN

The Model 337-98 Insulated Food Carrier is designed for conveniently transporting complete hot meals or cold foods from central kitchens or commissaries to point of service. Constructed of aluminum, they are lightweight for one person to carry short distances. They can be transported by car or trucks, arriving at the serving destination with foods fresh, hot or cold.

The outer and inner walls of the Food Box are separated by one inch thick high temperature polystyrene insulation. A plastic facing around door opening connects the walls to prevent heat loss. Each unit has a capacity of eight $7'' \times 9''$ compartment foil trays on stainless steel slides. Crescent Metal Products Inc., 12711 Taft Ave., Cleveland 8, Ohio.

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SERVING TRAYS IN BEAUTIFUL WOOD-GRAIN FINISH

Two new Kys-ite serving trays have been introduced in Gray American

Walnut and Blonde Cherry patterns. They combine plastic and wood fibers for unusual durability, are boil-proof, warp-proof and do not lose their design clarity, even with repeated washing. The trays are offered in one size —$18'' \times 14''$. Keyes Fibre Co., Waterville, Maine.

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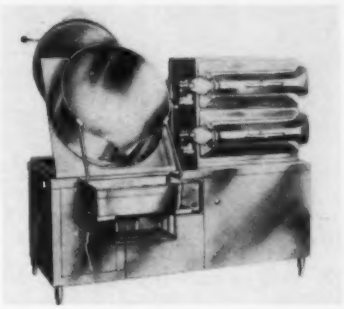
POWER-POUR FOR STEAMER KETTLE COMBINATIONS

The new motor-driven "Power Pour" is optional equipment for steamer kettle combinations. Easy to operate, Power Pour provides the operator with full control including power in reverse to return the kettle to upright position.



Cleveland's new Handy-High Receiver Carrier for steam kettles is used on Power Pour units. This provides maximum ease of pouring operations. Handy High supports kettle or pot at pouring snout while pouring. The Cleveland Range Co., 971 E. 63 St., Cleveland 3, Ohio.

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FAST MICROWAVE COOKING CENTER

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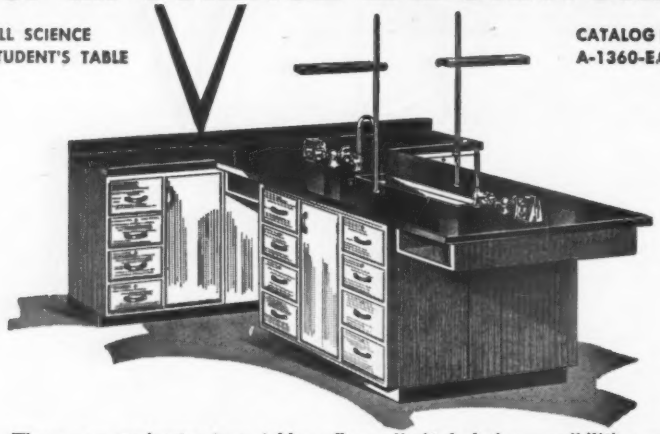

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GAS WATER HEATERS FOR FOOD SERVICE USE

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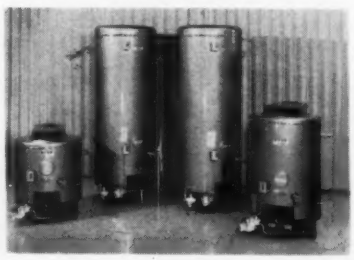

Ruud Copper Sanimaster commercial gas water heaters has just been introduced. Sixteen new models in single, duplex, and triplex installation are available. Each model or combination is specifically approved for one or more of the six door- and conveyor-type diswashing machine classifications of Standard No. 5.

Delivery of large-volume, high-temperature water is at lower cost because of the longer life of Ruud's new tanks of pure, solid copper reinforced with steel. Ruud Mfg. Co., Kalamazoo, Mich.

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STEAM COOKERS WITH MODULAR BASES

The Mark-Line consists of modular base units in four sizes, on which any combination of Market Forge Steam-Its, Compartment Cookers, 10 and 20 quart tilting kettles, and 30 and 40 gallon stationary or tilting kettles may be assembled. Over thirty arrangements are possible.

The stainless steel cabinets have inverted V-type edges to prevent liquids from dripping to the floor. Six-inch, adjustable bullet feet pro-

vide for cleaning underneath the cabinets, and no fastening to the floor is required. Only one connection is required for each service, and all drains are piped to a common line, with all plumbing inside the cabinets. Self-generated models house gas or electric steam boilers in the cabinets. Market Forge Co., Everett, Mass.

Circle **OV-207** on reply card, last page

STAINLESS STEEL FOUNTAIN AND FAST FOOD SERVICE UNIT

The Fiesta line of stainless steel fountain and fast food service equipment comes in three finishes: 1) with lustrous metal, 2) with doors, drawers and flat surface fronts faced with any color of plastic laminate, 3) with accent strips of colored laminate that will not peel, chip or crack. Improved sanitation and additional conveniences have been engineered into the line. Among these are coved corners, magnetic doors, recessed handles on drawers and doors, hair line joints, channels for legs and "cold wall" refrigeration. The Bastian-Blessing Co., 4203 Peterson Ave., Chicago 46, Ill.

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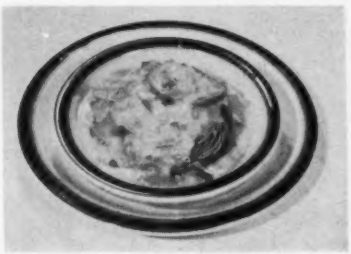
TUNA A LA KING COMES PRE-COOKED, READY TO HEAT

Tuna a la king is the latest addition to the Sexton line of convenience



foods. Pre-cooked and ready to heat and serve, it provides positive portion control and uniform quality, reduces waste and cuts expense for on-premise food preparation.

This savory dish is made of large flakes of white-meat Albacore tuna cooked in a rich sauce, complemented with pimento and green pepper. Ten five-ounce servings are packed in a No. 5 can. John Sexton & Co., P. O. Box J.S., Chicago 90, Ill.

Circle **OV-209** on reply card, last page

PRODUCTS OF SPECIAL INTEREST

SPRINKLER READIES GRID TURF IN RECORD TIME

The University of San Diego was faced with the unusual problem of making a football field ready for use

in only two and one-half months. Sod was trucked in and laying operations started. Success demanded continuous and even watering and so a Nelson Model 400 Rain Train Sprinkler was put into service. The Rain Train, propelled by a water-motor operated cable-winding drum, followed the sod down the field yard by yard. In three days, sodding was completed and the Rain Train operated day and night, distributing the correct amount of water in an even, steady and uniform manner. In six weeks the turf was established, the Rain Train used for maintenance, keeping the entire field irrigated with an even, rain-like fall of water that avoids excessive puddling and soggy spots. L. R. Nelson Mfg. Co., Peoria, Ill.

Circle **OV-210** on reply card, last page

AUDIOMETER DETECTS HEARING DEFICIENCIES

Universal Electronics Laboratories' Audiometer is a little larger than a portable radio with a frequency range of 125 to 800 CPS and a decibel range of 10 to 100 DB. Within the limits of an eight-minute test, it can determine with an amazing degree of accuracy whether or not a subject has normal hearing ability.

Universal Electronics Laboratories Corp., Hackensack, N. J.

Circle **OV-211** on reply card, last page

Circle **OV-167** on reply card, last page

FLOOR WORRY FREE

WEAR PROOF

rubber matting

SHAD-O-RUG

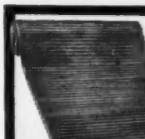
by America's 1st name in floor mats since 1903

- **Top quality ¼ inch heavy duty live rubber**
- **Choice of 6 smart decorator colors**
- **Low cost!**

Today's most popular rubber runner! Stops dirt at the entranceway or in corridors and aisles. Prevents tracking throughout the building. Protects carpeting and floors . . . cuts down maintenance time, labor and expense. Anti-slip action prevents accidents. Ultra-attractive design.

48 inch width up to 60 ft. lgth.

Write for complete details —nearest distributor



CROSS-RIB RUNNER
Same top quality live rubber. Selection of smart colors. Functional design. Available in 36 and 48 inch widths—up to 60 ft. lgths.

Exclusive! Wear-Proof mats feature patented "V" rib design. Dirt is scraped off shoes by heavy duty blades with "windshield wiper" action — Dirt falls into slots, easily cleaned out later.

WEAR PROOF MAT CO. 2156 W. Fulton St., Chicago 12, Ill.

Circle OV-168 on reply card, last page

PLEX-I-GLOSS® FLOOR FINISH

An ANTI-SLIP.... PLASTIC MAGIC FOR HEAVILY TRAFFICKED FLOORS!

Fortunately, your floor isn't a football field, but if it were you could rely on Plex-I-Gloss protection.

Plex-I-Gloss gives floors a diamond-hard finish with no buffing. Requires minimum care, saves labor, saves money. With one quick, easy application, Plex-I-Gloss puts long-lasting protection down deep. Safe, beautiful protection that's easily maintained.

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Offices in: Los Angeles • St. Louis • New York

SLANTED SHELF BOOKCART IS TWO-SIDED

A new double-sided bookcart, with space-saving slanted shelves, has been

announced by Grade-Aid Corp. Four feet wide, 38" tall and 18" deep, the new cart has 16 feet of book storage space. The shelves are arranged in a unique cross-pattern, with two shelf openings on both the front and back of the unit. Several students may use the bookcart at one time, with all titles easily readable from eye level.

Mobility and easy handling are provided by four 3" swivel casters, two equipped with locking devices. Construction is of sturdy furniture-grade steel. Available in tan with red end panels, or gray with blue end panels. Grade-Aid Corp., 46 Bridge St., Nashua, N. H.

Circle **OV-212** on reply card, last page

LAUNDRY MACHINE WASHES FASTER, BETTER

A new concept in washing speed and quality of work is introduced by the Milnor Combination Washer-Extractor. The operation is entirely automatic, including supply injection. A new water inlet arrangement wets down the load immediately. Extraction speed is 1000 RPM. The machine features short duration (20 seconds) intermediate extractions between suds and rinses to reduce the volume of soiled water left from each preceding operation without delays or formula lag time. Pellerin Milnor Corp., P. O. Box 19264, New Orleans 19, La.

Circle **OV-213** on reply card, last page

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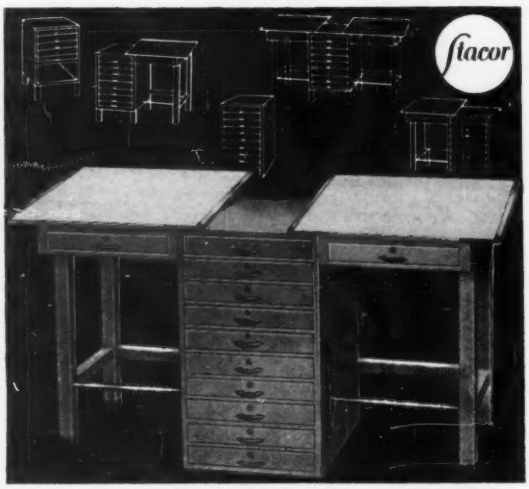
turn your budget* into a **lifetime** investment

specify functional, flexible lifetime quality
STEEL



MULTI-STUDENT DRAWING UNITS

from the famous **FLEX-MASTER** *line*

• **ECONOMICAL** • **NO MAINTENANCE:** last a lifetime! • **SPACE-SAVING:** 3 basic cabinets plus desks serve 6 to 12 students at each unit.

EXCLUSIVE STACOR FEATURES: • Open working surface • Horizontal storage of boards up to 20" x 26" plus T-Square, tools, other material • Drawers have individual locks . . . are masterkeyed • Heavy gauge steel • Hard-baked enamel finish in decorator colors: Beige, Mist-Green & Gray • Permanence • Minimum upkeep

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manufacturers of lifetime quality equipment for schools, libraries & industry
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BLEACHERS AND GRANDSTANDS

To receive all of the literature listed in this column, just circle OV-301 on the business reply card at the back of this issue.

"Model 6 Bleachers." "Roll Out Gym Seats." "Permanent Grandstands." Three new catalogs from Hussey. The bleachers can be relocated quickly and easily from football field to tennis courts, baseball diamond, track, swimming pool, basketball court, auditorium stage, band room; wherever large quantities of seating are needed. The grandstands are custom-designed installations for maximum safety at realistic cost. All closed decks are a feature of the roll out gym seating, insuring safe, firm footing for spectators. Hussey Mfg. Co., Inc., North Berwick, Maine.

Circle **OV-302** on reply card, last page

"New V.O.S. Vinyl-On-Steel." New folder describes Brunswick's folding gym seating with a leather look. Comfortable, maintenance-free service is guaranteed. Vinyl seating can be cleaned with ordinary detergents; heavy gauge steel assures safety. Brunswick Corp., School Equipment Div., Kalamazoo, Mich.

Circle **OV-303** on reply card, last page

"Standard Steel Permanent Grandstands." "'Standard' Steel Frame Bleachers and Grandstands." Helpful information on the Standard Steel line. A seating capacity and dimension chart should be of aid in ordering. Permanent grandstands are prefabricated, economically priced, engineered for safety and service. Standard Steel Bleacher Div., Standard Steel & Supply Co., Three Rivers, Mich.

Circle **OV-304** on reply card, last page

"Safway Spectator Seating." "DeLuxe Portable Steel Bleachers." "Portable Sectional Steel Bleachers." The Budget Master Bleacher described offers steel bleacher seating at economy costs. Another type of gym seating available is the telescoping unit, in which three to twenty rows of gym seats telescope into a self-contained cabinet just three feet deep. A DeLuxe model portable steel bleacher is designed for maximum safety and durability. Safway Steel Products, Inc., 6228 W. State St., Milwaukee 13, Wis.

Circle **OV-305** on reply card, last page

"Snyder Steel Grandstands and Bleachers." Any unit length and up to 30 tiers of seating are available in this line. In addition to the steel grandstands and bleachers offered, there is an economy bleacher, designed primarily for use in playgrounds, community centers, etc., incorporating all the safety features found in the larger units, but fabricated and stocked for quick deliveries, ease of installation, and portability. Snyder Tank Corp., Bleacher Div., P.O. Box 14, Buffalo 5, N. Y.

Circle **OV-306** on reply card, last page

"Ez-A-Way Mechanical Folding Bleachers." Five different types of mechanical folding bleachers plus chair stands. The Berlin Chapman line of outdoor seating includes all-steel portable bleachers, aluminum bleachers, permanent grandstands and steel deck grandstands. Architect's specifications given. Berlin Chapman Co., Berlin, Wis.

Circle **OV-307** on reply card, last page

"Safe, Versatile, Economical, Permanent plus Complete Design Flexibility." The Pittsburgh-Des Moines steel grandstands can be added to at any time to increase capacity in width, depth or both. Helpful recommendations are given for seat width, aisle width, etc. Capacity tables for various stand lengths and depths are included. Pittsburgh-Des Moines Steel Co., 3425 Neville Island, Pittsburgh 25, Pa.

Circle **OV-308** on reply card, last page

"Wayne." A well-organized folder showing many kinds of Wayne equipment for the gymnasium. Also includes a section on outdoor seating in a wide range of prices. The Wayne products described are folding partitions, gym seating, backstops, folding stages, and outdoor seating. Wayne Iron Works, Wayne, Pa.

Circle **OV-309** on reply card, last page

"Planning Book for Gymnasium Seating." This helpful booklet explains how to choose seating in terms of comfort, convenience, and cleaning. Construction details are included. Universal Bleacher Co., Champaign, Ill.

Circle **OV-310** on reply card, last page

"Leavitt Seating, Portable and Permanent, Wood and Steel, Elevated and Non-Elevated." Information on what to look for in a good bleacher will be of much help. Complete specifications given on the Leavitt line. Leavitt Bleacher Co., Urbana, Ill.

Circle **OV-311** on reply card, last page

GYM ACCESSORIES

"Petersen Gym Mat." Mats of all types and descriptions for tumbling, wrestling, kindergarten napping, and permanent and removable wall padding will help provide safety in the gym. If you are building a new school, the catalog features a list of gym equipment that should be helpful. Petersen & Co., Inc., Belfield Ave. at Wister St., Philadelphia 44, Pa.

Cricle **OV-312** on reply card, last page

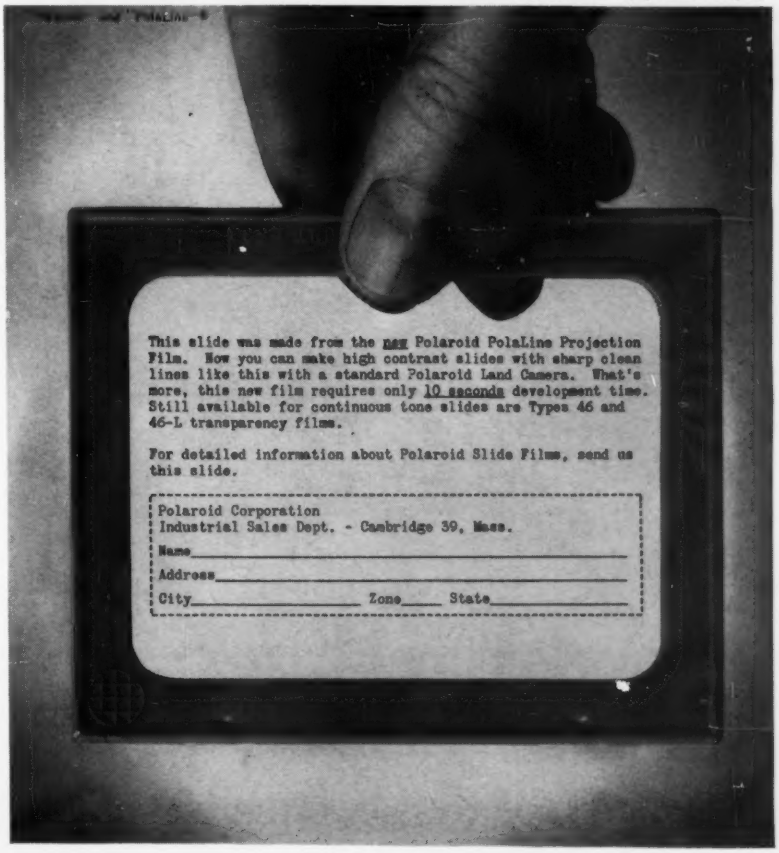
"Nissen Medart Gymnasium Apparatus." An extremely comprehensive catalog of gym apparatus of every description. Well illustrated with complete descriptions and specifications. Includes mats, rebound tumbling equipment, basketball scoreboards, cushioned wainscot, etc. Nissen Medart Corp., 930 27 Ave. S.W., Cedar Rapids, Iowa.

Circle **OV-313** on reply card, last page

Three different catalogs illustrate the Fair Play line of scoring equipment from standard economy models for little league and high schools to custom-built installations. Fair Play Scoreboard Co., Box 359, Des Moines 2, Iowa.

Circle **OV-314** on reply card, last page

Circle **OV-170** on reply card, last page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PRODUCT LITERATURE

These free booklets offer much up-to-the-minute information.

Setting Up A Language Laboratory

A comprehensive brochure has just been issued by RCA featuring their Preceptor Language Laboratory equipment. Amply illustrated, this booklet contains information on the functions, use and installation of a laboratory; also brief specifications on equipment. Educational Electronic Products, RCA Telecommunication Center, Meadow Lands, Pa.

Circle **OV-401** on reply card, last page

Sectional Counters Keep Foods Hot, Cold

Catalog SCC-61 is designed to be a specifying guide for the selection of cafeteria counters. Suggested floor plan layouts are included. Southern Equipment Co., 4550 Gustine Ave., St. Louis 16, Mo.

Circle **OV-402** on reply card, last page

Shop Instructors' Ordering Guide

South Bend Lathe's new catalog on shop tools and accessories is just off press. The booklet can be used as an ordering guide and contains specifications and descriptions on a number of different lathes, milling machines, pedestal grinders, and accessories. South Bend Lathe, Inc., South Bend 22, Ind.

Circle **OV-403** on reply card, last page

How to Plan Laundry Installations

Complete new catalog features laundry equipment for schools and colleges. Helpful information on how to plan laundry installations for most efficient operation. A copy of Catalog AI 150-002 may be obtained from American Laundry Machinery Industries, Cincinnati 12, Ohio.

Circle **OV-404** on reply card, last page

Organ Has Pleasing Tone

A new 2-page bulletin describing the Magnus Cathedral organ is just off press. This instrument is an entirely new kind of organ. Neither an electronic organ nor a reed organ, it is a fusion of the two to produce an especially good organ tone. Magnus Organ Corp., 100 Naylon Ave., Livingston, N. J.

Circle **OV-405** on reply card, last page

Ideas for Shower Room Design

"Logan Multi-Station Shower Fixture Catalog" shows you how to design a shower room using Logan wall-hung, back-to-back, two side service, and free-standing central shower systems. All models offer concealed piping, yet retain the advantages of exposed piping installations. The Logan Mfg. Co., P. O. Box 111, Glendale, Calif.

Circle **OV-406** on reply card, last page

Audio Teaching Components Designed for Classrooms

Audiotronics presents their special classroom record players, p.a. systems, radios for teaching, and tape recorders in a new folder. Specifications make it easy to order directly from the literature. Audiotronics, 11057 Weddington St., N. Hollywood, Calif.

Circle **OV-407** on reply card, last page

Teacher's Manuals for Programmed Math Courses

Teachers' manuals, covering courses in first and second year algebra, plane geometry, trigonometry, and modern algebra will be available for the first time to school systems using TEMAC programmed learning materials developed by EBF. A distinguished group of educators developed the material. Encyclopaedia Britannica Films, 1150 Wilmette Ave., Wilmette, Ill.

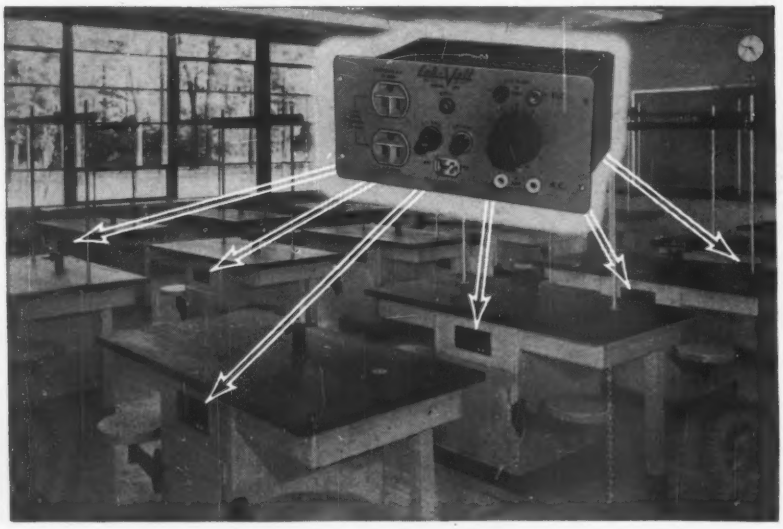
Circle **OV-408** on reply card, last page

Complete Line of Delta Power Tools

A new comprehensive catalog describes the complete line of Delta drill presses, grinders, shapers, jointers, metal and wood cutting lathes and many other shop machines. Request Catalog AB-61 or circle OV-409 on the reply card at the back of this magazine. Rockwell Mfg. Co., Delta Power Tool Div., 491 N. Lexington Ave., Pittsburgh 8, Pa.

Circle **OV-409** on reply card, last page

Circle **OV-171** on reply card, last page



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The business reply card covers products and services referred to in both advertisements and editorial reviews in this issue. The key (OV number) is found above the advertisement or following the editorial listing in the body of the magazine.

If further information concerning any of these products is desired, it will be sent without charge or obligation. Simply circle the identifying numbers on the back of the business reply card and mail it to us.

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November, 1961

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Recreation Areas in Schools and Colleges

For many years Holophane Engineers have been leaders in the development of the finest illumination for every area in educational institutions...When Holophane units are used for any type of gymnasium or field house they produce the **least costly** lighting with the most effective results...Check these outstanding advantages:

Distribution: Prismatic control permits highest utilization of light. Minimum number of units provide maximum illumination.

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B: William Diamond Jr. H. S.
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